



Contact Information

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WHAT ARE PROJECT LEAD THE WAY CLASSES?

Project Lead The Way (PLTW) is a nationally recognized program that provides hands-on, real-world learning in science, technology, engineering, and mathematics (STEM). PLTW classes follow two distinct paths, Engineering and Biomedical. Biomedical classes like Principles of Biomedical Systems expose students to careers within the medical field. PLTW classes are designed to empower students to develop in-demand, transportable skills such as problem solving, critical and creative thinking, collaboration, and communication using project based learning.

COURSE DESCRIPTION

In *Principles of Biomedical Science (PBS)*, students explore the concepts of human biology and medicine as they investigate real-world cases. Working as biomedical professionals, students examine the structures and interactions of human body systems and explore how lifestyle choices and medical treatments affect health. Through hands-on projects and labs, students delve into biology, medicine, and research while building critical thinking, teamwork, and communication skills.

COURSE ACTIVITIES (What we will be doing)

Below you will find descriptions of the most common activities that students will participate in during the course of each semester.

Throughout the year, examples of projects students will complete:

- Investigating a fictional person's death through autopsy and lab tests
- Studying the progression and treatment of diabetes
- Modeling the cardiovascular system and measuring heart health

This course sets the foundation for more advanced PLTW Biomedical Science courses such as *Human Body Systems*, *Medical Interventions*, and *Biomedical Innovation*.



GRADES - Click here for → [YWLA Grading Policy](#)

Major (Test, Projects, Writing) 60%

Minor (Notes, Daily Work) 40%

Classroom Resources (examples below)

- PLTW Course Teacher Resource
- PLTW Course Student Resource
- Google Classroom
- syGlass Virtual Reality
- Vernier, Carolina, and other Science company instruments and resources.
- Internet searches for research

Fall Semester Exam Date:

December 18, 2025

End of Course Exam Date:

May 21, 2025

COURSE OBJECTIVES AND TOPICS

- Human body systems and functions
- Mechanisms of disease
- DNA analysis and genetics
- Diagnostic testing and medical treatments
- Medical interventions and public health
- Forensic investigation techniques

Optional Materials/Resources:

Google Scholar, National Institute of Health, National Library of Medicine

Please feel free to reach out with any questions or concerns. We are excited to work together to make this a successful year of learning!
