



Biomedical Innovation/2025-26 Instructional Plan Created on 08/06/2025

Contact Information

Teacher Name: Scott Pattillo

Email: scott.pattillo@midlandisd.net

Phone: (432) 240-8763

WHAT ARE PROJECT LEAD THE WAY CLASSES?

Project Lead the Way (PLTW) classes follow two distinct paths, Engineering and Biomedical. Biomedical classes like Biomedical Innovations expose students to the medical field STEM careers by “immersing students in activities like practicing suturing and constructing body structures from clay, PLTW Biomedical Science empowers students to build knowledge and skills in biomedical science, as well as in-demand, transportable skills like problem solving, critical and creative thinking, communication, and collaboration.” (PLTW.org)

COURSE DESCRIPTION

Students build on the knowledge and skills gained from previous courses to design their own innovative solutions for the most pressing health challenges of the 21st century. They will use project-based learning for collaboration, teamwork, and communication skills so they can be ready to step into their future careers in the medical or medical adjacent fields.

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, students will:

- Work through Cases and Projects concerning specific medical issues.
- Work with hands-on equipment used in the medical field.
- Simulate real-world medical solutions.
- Allow students to utilize real-world lab technologies.
- Tour facilities and observe STEM medical careers in action.

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

Major (Test, Projects, Writing)	60%
Minor (Notes, Daily Work)	40%

Classroom Resources (examples below)

- [PLTW.org](#)
- [Google Classroom](#)
- [Vernier, Carolina, and other Science company instruments and resources.](#)



Biomedical Innovation/2025-26 Instructional Plan Created on 08/06/2025

- Internet searches for research

Fall Semester Exam Date:

TBA

End of Course Exam Date:

TBA

COURSE OBJECTIVES AND TOPICS (CED Breakdown and Description)

- **CED**
- **Unit 1:**
 - **Problem 1:** Design of an Effective Emergency Room
 - **Problem 2:** Exploring Human Physiology
 - **Problem 3:** Design a Medical Innovation
 - **Problem 4:** Investigating Environmental Health
- **Semester Exam**
- **Unit 2:**
 - **Problem 5:** Combating a Public Health Issue
 - **Problem 6:** Forensic Autopsy
 - **Problem 7:** Independent Project
- **End of Year Exam**

Optional Materials/Resources:

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

Anything else you want to include for your course:

Field Trip(s): Healthcare Facility Tours, Guest Speakers

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!
