

Course Name: PTLW Principles of Biomedical Science Year 1

Duration: 1 Semester Full Year

Grade Level: 9th 10th 11th 12th (check all that apply)

Are there any prerequisites for the course?

- No science prerequisites
- Meets the graduation requirements for a science OR CTE credit

WHAT this course is about:

This course provides an introduction to the biomedical sciences through hands-on projects and problems. Student work involves the study of human medicine, research processes and an introduction to bioinformatics. Students will have the opportunity to research a variety of careers in the fields of medicine and biotechnology. Reading and writing skills are emphasized throughout the year with a focus on professional and technical writing through lab reports. Students will learn how to act as a biomedical scientist, developing important laboratory skills in addition to student's content understanding.

WHY take this course:

Principles of biomedical science introduces the various parts of the biomedical field. This course will help prepare you for a career in medicine or health care and will challenge you to solve real-world problems. This class incorporates microbiology and genetic side of the biomedical field to solve a medical mystery case, diagnosing and treating a patient, and responding to a medical outbreak. This class can count for a science credit or a CTE credit.

WHAT you'll learn:

- Hands-on approach to learning, including science and inquiry.
- Critical thinking and problem-solving skills.
- Proper lab techniques.
- Careers in biomedical field
- How to collaborate and work with other students

WHAT you'll do:

Students will practice how to think creatively and critically to innovate in science and gain practical experience tackling challenges that biomedical professionals face in the field. Students will work through real-world situations, cases, and problems, such as solving a medical mystery case, diagnosing and treating a patient, and responding to a medical outbreak.

WHERE this could take you:

This course is the first class in the PLTW Biomedical sequence. This is a four-year program where each year the students will work on more advanced labs, learn about the human body, and conduct their own research. The PLTW Biomedical sequence prepares students to enter the biomedical field.

OPTIONAL Course Outline (“scope and sequence”, sequence chart, etc.)

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