

Principles of Biomedical Science

Project Lead the Way

2017-2018

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Room # D-1
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Course Description

“Principles of Biomedical Science” is the introductory course of the PLTW Biomedical Science program, which is a ***four year Career and Technology Completer Program***. This course ***does not*** count for a science elective. In this course students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person’s life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems.

Goals

“Principles of Biomedical Science” is a course designed to engage student interest in STEM fields. The project-based aspects of the Project Lead The Way curriculum give students a chance to apply what they know, identify a problem, find unique solutions, and lead their own learning, rather than be passive recipients of information in a question-and-answer, right-or-wrong learning environment. When students understand how their education is relevant to their lives and future careers, they get excited, and that is why PLTW students are successful.

Additionally, PLTW supports a balanced approach to assessment for all programs, integrating both formative and summative assessments. Through a balanced assessment approach, assessment is an ongoing activity. Students demonstrate their knowledge throughout the course by completing activities, projects, and problems using a variety of assessment tools, such as performance rubrics and reflective questioning, to deepen and expand their knowledge and skills.

Course Pre-requisites

None

Course Requirements

Students will be required to take an End of Course Exam, which will also count as their year end final, to determine the level of mastery of content.

Students will be required to construct a portfolio, either electronically or manual, that exemplifies their progression and skill acquisition through the cohort.

Students will be expected to keep a daily class reflective, in the form of a science lab journal, that highlights their class activities.

Text/Resources

- Students will use an online Learning Management System (LMS) where they can access all course documents and submit assignments electronically.

Required Materials

- 4 Composition Books
- Folder with pockets (supplied)
- pencil / pen (Blue or black ink only)
- flash drive

Units of Study

Unit I – The Mystery
Unit 2 – Diabetes
Unit 3 – Sickle Cell Disease
Unit 4 – Heart Disease
Unit 5 – Infectious Disease
Unit 6 – Post Mortem

Grading Policy

Categories	Percent of Total Term Grade	
<i>Summative</i>	70%	<i>Summative Tests 45%</i> <i>Summative Quizzes 25%</i>
<i>Formative</i>	30%	<i>Formative Classwork/Homework 15%</i> <i>Formative Labs/Projects 15%</i>
<i>Please refer to the county calendar for a complete explanation of this year's grading policy.</i>		

Components of Course Grade calculations							
	Q1	Q2	Midterm Exam	Q3	Q4	Final Exam	Course Grade
Percentage	45%	45%	10%	45%	45%	10%	
	<i>Semester 1 (S1)</i>			<i>Semester 2 (S2)</i>			
Y1	50%			50%			100%

All graded work must be retained for a *minimum* of two weeks after it is returned to guarantee that grades entered in the grade book are accurate. Checking grades are the responsibility of the student, and any appeals to published grades must be accompanied by the work in question. **The student must keep all PLTW journals, activities, work etc., for the duration of the four-year cohort.** In future levels, the student will need to refer to assignments used in previous years.

Make-up work/Re-Test Policy

Make-up work and retest can be completed only as outlined in the student handbook. It is the student's responsibility to obtain make-up work. To sit for retest, the student must fill out the required retest contract and schedule a time to retest. The contract must be presented 24 hours before the intention to retest. Your work will be due within the time allowed in the student handbook. **This class is predominantly project based activities, which cannot be supplemented at home. Depending on the activity, if a student misses class for absence, sporting activity, field trip etc., they may be required to stay afterschool to complete the task, to receive credit for the assignment and to acquire the concept of knowledge.**

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I have read and understand the expectations and grading procedures for Principles of Biomedical Science.

Student Signature: _____

Date: _____

Parent Signature: _____

Date: _____