***Project Lead the Way:***

***Principles of Biomedical Sciences*** ™ ***(PBS)***

***2020-2021***

Teacher information:

K. Taylor ~ Rm. 205 (Google Meet)

Google Voice 314-282-5637

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Conference hours: after school or by appointment.

**Class Hours**: Each class period meets from 7:15 am – 8:45 am, on Red days.

**Required Equipment**: Chromebook

**Lab Manual:** *Project Lead The Way Curriculum and Laboratory Manuals (*Provided by the instructor).

**Resources:**

Internet resources are widely used during this course and their use varies from year to year depending on time and availability. Some websites used regularly are as follows:

* PLTW.org ٠NOVA Online
* National Institute of Health ٠How the Market Works.com
* Howard Hughes Medical Institute \* Dr.Taylor’s SciWorld
* Google Classroom

**Course Description and Goals:**

The Project Lead the Way® Principles of Biomedical Science™ course is the introductory course in the PLTW Biomedical Science program. In this course, students will begin by exploring concepts of biology and medicine to determine the 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

Working in teams, students will learn about documenting learning from projects, solving problems, and communicating solutions to other groups of students as well as biomedical science professionals. This course is intended to serve as an introductory course with the Project Lead The Way® Biomedical sequence. Upon completion of the course, high school students will take a comprehensive, national End of Course Assessment. PLTW Principles of Biomedical Science™ is a rigorous course that stresses scientific principles and analysis and includes a laboratory component. In breadth and depth, the content of this course reflects what is found in many introductory courses in biomedical sciences. The emphasis of this course is a hands-on, inquiry-based approach, which includes labs and cooperative learning experiences to supplement material in class.

**Supplies and Materials:**

Students will be required to keep all handouts, graded work, artifacts, labs, and tests for the purpose of further research and study material. There is a comprehensive final exam in May that covers material from the entire year. The following is a list of necessary materials:

* Chromebook
* Spiral notebook or composition book
* Black or blue ink pens
* #2 pencils
* 3x5 index cards

**Assignments/Homework:**

Students are required to complete the warm up activity every day, participate in class discussions, group work, cooperative activities, labs, research, and homework assignments. Student electronic science notebooks will be collected with the aforementioned artifacts at the end of each unit and periodically checked throughout the unit. ***It is your responsibility to obtain and complete any make up work.*** Due to the nature of the PLTW curriculum, regular class attendance is necessary for academic success.

* Reading and answer essential questions.
* Take lecture/lab notes and draw sketches
* Readings and case studies
* Lab Reports write-ups
* Journal and newspaper summaries
* Essays
* Creating posters, presentations, surveys
* Conducting research and write essays
* Complete career journals

**Assessments:** One to two assessments are given per unit and will cover the unit material which includes all information from class labs, activities, and discussions. Assessments will be composed of multiple choice, word problems, and extended response. Questions will be drawn from lecture notes, text questions, documentaries, case studies, and lab/activities completed during the unit. Additionally, students **must** pass the lab safety test before participating in labs (*This will occur when we return to in person learning*). Students must complete the End of Course assessment to fulfil course requirements. If students are found to be cheating or using cell phones during an exam, the student will receive a zero for that exam grade.

**Scope and Sequence:**

The following outline for the PLTW Principles of Biomedical Sciences™ course is intended to be a guide to the level and breadth of materials and content expected .

**Unit 1: Medical Investigation**  **Unit 2: Clinical Care**

Lesson 1.1 Investigating the Scene Lesson 2.1 Talk to Your Doctor

Lesson 1.2 Master the Morgue Lesson 2.2 Decoding a Diagnosis

Lesson 1.3 Open Investigation Lesson 2.3 New to the Practice

**Unit 3: Outbreaks and Emergencies**  **Unit 4: Innovation, Inc.**

Lesson 3.1 Nonsocomial Nightmare Lesson 4.1 Designing the Future

Lesson 3.2 Emergency Response Lesson 4.2 New Frontier

Lesson 3.3 Information SharingLesson 4.3 Invitation to Innovation

**Projects:**

There will also be several “projects” to be completed during the year. These include, but are not limited to, lab write ups, career journals, modeling projects, or team activities. An individual research project may also be assigned.

Grading Procedures:

* Classwork 30%
* Assessment 70%
* TOTAL 100%
  + Classwork includes: Virtual Notebook entries, Labs, Projects, Essays, Independent work,   
     Document analysis, Presentations, writing prompts, journaling, exit slips, and group   
     activity reflections
  + Assessment includes: Unit exams, benchmarks, EOCs, TSA exams, laboratory write ups.

**Grade Scale**

* 90%-100% A Excellent Performance
* 80%-89% B Good Performance
* 70%-79% C Average Performance
* 60%-69% D Not Mastering Concepts
* 0%-59% F Unsatisfactory Performance

### Academic Dishonesty:

Academic dishonesty of any nature will result in disciplinary action, which may include receiving a failing grade on the work in question and disciplinary action from the school.

**Classroom/Lab expectations:**

* Enter with Chromebook muted and complete the Writing prompt.
* Log into Google Meet at least 2 minutes before class begins.
* Be mindful of virtual meeting etiquette. Get dressed, eat your meal, get your learning   
   space ready with necessary space and materials and take care of any necessary grooming   
   needs prior to logging into class.
* Once class has begun, raise your hand or unmute to respond/ask questions
* Remain muted unless you have a question or have been instructed to unmute.
* Be respectful and pay attention. (Minimize distractions such as TV, radio, texting, etc.)
* No side conversations or profanity, be respectful and pay attention.
* Fully participate in class. This means taking notes, doing practice problems, answering   
   questions, presenting your work, participating in groups, completing labs, and working   
   independently. \*\*
* All class work must be turned in by the end of class unless otherwise instructed.
* All reading assignments, homework and summaries must be prepared and completed   
   prior to class, unless instructed otherwise.
* Use your time wisely, there is no such thing as down time or free days.
* No sleeping, no head down, or blacked-out screens. I need your complete attention.
* **Do Not** miss lab or group activities, there are no makeup labs.

**School and District Rules/Policies:** School and district policies will be enforced in my classroom along with classroom rules and norms. This includes, but is not limited to policies dealing with electronic devices, uniform policy, profanity, fighting, and/or bullying. There will be no exceptions or bargaining. Failure to follow rules and policies will result in disciplinary consequences.

**Conduct expectations**

* Be respectful to yourself, the classroom, fellow students, and to instructors, at all times.
* Be prepared. Enter Google Meet muted and have pens/pencils and paper for every class.
* Be on time. Enter the Google Meet ready to learn from “bell to bell”.

**Discipline Policy**

* first offense: verbal warning
* second offense: call to parent/guardian
* third offense: call to parent or referral
* fourth offense: referral

**Extra Credit(** No extra credit will be excepted if all assigned work is not completed).

* There will be opportunity for other extra credit assignments as the semester progresses in   
   the way of reports, video presentations, attending lectures, etc.
* There is an opportunity to drop the lowest test grade and replace it with 100 points by   
   participating in science fair or Junior Science, Engineering, and Humanities Symposium.

If there are any questions or concerns, please do not hesitate to speak with my personally, by phone, or by email. I am happy to speak with parents and students. However, in order to preserve instructional time, I ask that conferences be held during conference time.

*Note: The syllabus is subject to change at the discretion of the instructor when classes resume face to face. You will receive a revised syllabus and signature page at that time.*