

**Medical Interventions**

**Instructor:** Mrs. Marty Warren

**Instructor Contact Information:** warrenm@jenningsk12.org

**Instructor Availability:** Mondays and Wednesdays 3:00 pm to 3:30 pm or by appointment

**Room #: S118**

**Textbook:** Project Lead the Way Medical Interventions Online Site and Materials Distributed by Instructor

**COURSE DESCRIPTON**:

Medical Interventions (MI) allows students to investigate the variety of interventions involved in the prevention, diagnosis, and treatment of disease as they follow the lives of a fictitious family. A “How-To” manual for maintaining overall health and homeostasis in the body, the course will explore how to prevent and fight infection, how to screen and evaluate the code in our DNA, how to prevent, diagnose, and treat cancer, and how to prevail when the organs of the body begin to fail. Through these scenarios students will be exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Each family case scenario will introduce multiple types of interventions, reinforce concepts learned in the previous two courses, and present new content. Interventions may range from simple diagnostic tests to treatment of complex diseases and disorders. These interventions will be showcased across the generations of the family and will provide a look at the past, present, and future of biomedical science. Lifestyle choices and preventive measure are emphasized throughout the course as well as the important role that scientific thinking and engineering design play in the development of interventions of the future.

The course is broken down into the following units:

Unit 1 How to Fight Infections 25%

1.1 The Mystery Infection

1.2 Antibiotic Treatment

1.3 The Aftermath: Hearing Loss

1.4 Vaccination

Unit 2 How to Screen What’s In Your Genes 15%

2.1 Genetic Testing & Screening

2.2 Our Genetic Future

Unit 3 How to Conquer Cancer 30%

3.1 Detecting Cancer

3.2 Reducing Your Risk

3.3 Treating Cancer

3.4 Building a Better Cancer Treatment

Unit 4 How to Prevail When Organs Fail 30%

4.1 Manufacturing Human Proteins

4.2 Organ Failure

4.3 Transplant

4.4 Building a Better Body

**REQUIRED MATERIALS:**

Notebook and a dedicated folder for this class

5 binder dividers

Pencils/Pens/Hi-lighters

Other supplies as needed per activities/laboratory exercises

**METHODS OF INSTRUCTION:**

Lecture/Discussion

Multimedia/Audiovisual (PowerPoint, DVD, Videos)

Individual reading and work

Demonstration/Return Demonstration

Classroom/Group interactive activities

Role play/Simulation

Student presentation

Laboratory work

**In this class, we will be doing a few things consistently to support your overall academic development.** Two things that will be implemented regularly are:

* Close-Reading with Annotation
* Writing use Claim, Evidence, and Reasoning model

**EVALUATION:**

|  |  |  |
| --- | --- | --- |
| **Course Work** | **Percentage** | **Types of Assignments** |
| Major | 70% | **Assessments:** Unit exams, Quizzes, Final |
| Daily | 30% | **Daily work:** Unit activities, Lab note book/ lab, Conclusion questions, Career Journal, Participation |

**Grading Policy: A = 90-100; B = 80-89; C = 70-79; D = 60-69; F = 0-59**

**ATTENDANCE:**

* **TARDY** – A tardy is failure by a student to be in the classroom when the session has started.. After missing the first ten minutes of class, the student will be counted absent.
* **MAKE-UP WORK DUE TO ABSENCE** - ***This is the student’s responsibility!***
  + **Pre-arranged –** Student needs to meet with the teacher prior to the absence to obtain and or complete work they will miss.
  + **After an absence –** Student needs to check with teacher about missing work.
  + **Late assignments**/**Late lab assignments**– You can expect a letter deduction for each day a missing assignment has not been turned in. Missing work **will not** be accepted for grading after the end of each quarter.
* **WHAT TO DO IF YOU HAVE BEEN ABSENT**

**YOU ARE RESPONSIBLE FOR FINDING OUT WHAT YOU MISSED WHEN ABSENT!!!**

1. Copy down the notes from the days you were absent from a reliable student. This should be taken care of either before or after class, not during class.

2. Check Google Classroom and the assigned PLTW Unit for the missed class to see what assignments you missed. You will have three days from the day you return to get these completed.

3. Turn in any assignments that were due while you were absent.

4. Check the “Out Box” to see what papers were returned while you were gone.

5. Check the file folders for any handouts that were given in your absence.

6. Since ample notice is given of upcoming tests, you will be expected to take any test you missed on the day you return unless the absence has been extended.

7. See Ms. Warren if you have any questions or need clarification on missed assignments.

**RETAKE POLICY:**

* Retakes will be allowed for ONLY failed assessments.
* Retakes will be allowed ONCE per failed assessment.
* The highest points possible on a retaken assessment will be 75%, or a “C”.
* NO retakes on daily work will be allowed.
* Retakes on assessments must be completed within the quarter they were originally administered.

**CLASSROOM RULES & EXPECTATIONS:**

1. Be respectful, responsible, and safe to fellow students, staff, and substitute staff.
2. Be on time and come prepared to learn.
3. Ask for help when needed and maximize your learning time.
4. Class participation is an expectation.
5. Cell phones may not be used during class, unless directed by the teacher for specific educational purposes.
6. Please do not eat in class unless specifically allowed to do so by the instructor. Water in PLASTIC containers is allowed. All other types of drinks will be allowed at the discretion of the instructor.

**LABORATORY RULES & EXPECTATIONS:**

**SAFETY IS IMPORTANT! WE ALL MUST FOLLOW THE FOLLOWING RULES IN ORDER TO HAVE A SAFE AND PRODUCTIVE LABORATORY EXPERIENCE!**

**STUDENTS ARE EXPECTED TO PUT ON SAFETY ATTIRE *BEFORE* STARTING THE LABORATORY EXPERIMENT/INVESTIGATION**

1. Closed-toed shoes are required by everyone in the laboratory. No slides, shower shoes, slippers, etc. Please wear the proper shoes on “LAB DAYS.”
2. Long hair/braids must be tied back.
3. Lab aprons/coats must be worn during lab to protect your clothing and yourself from any spills, splashes, and so forth.
4. Long sleeves should be rolled up to prevent accidents.
5. Safety glasses/goggles should be worn during the ***ENTIRE*** time you are in the lab. There may be a time when you may need a break from your goggles/glasses. The instructor will guide you to a designated area where you may “take a break” from your safety glasses/goggles.
6. Gloves are to be worn during specific labs as required by the instructor.
7. Please ***DO NOT EAT*** or ***DRINK*** in the lab! If you break this rule, you will be assigned an “F” for each section of the lab exercise!
8. ***NO GUM, MINTS***, or ***HARD CANDY*** in your mouth while in the lab. If you break this rule, you will be assigned an “F” for each section of the lab exercise!
9. All pre-lab assignments ***MUST*** be completed ***PRIOR*** to the laboratory exercise. Failure to do so will forfeit participation in the lab and student will be assigned a grade of ***ZERO*** for ***all*** sections of that lab.
10. All pre-lab setup ***MUST*** be completed at least one day before the laboratory exercise. Failure to do so will forfeit participation in the lab and student will be assigned a grade of ***ZERO*** for ***all*** sections of that lab.
11. All lab assignments must be turned in on time. Late assignments **WILL NOT BE ACCEPTED!**
12. Be respectful, responsible, and safe to fellow students, staff, and substitute staff.
13. Be on time and come prepared to learn.
14. Ask for help when needed and maximize your learning time.
15. Laboratory experiment participation is an expectation.
16. Cell phones may not be used during lab, unless directed by the teacher for specific educational purposes.
17. All purses, bags, and other notebooks will be kept in the classroom under lock and key, **OR** they may be stowed behind the teacher’s lab bench in the lab on lab days.