

PLTW | Biomedical Science

Medical Interventions Course Syllabus 2024-25

Teacher: Kelly Beulke

Location: Room 127

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Materials: notebook/folder, calculator, Chromebook, access to the MI Google Classroom

Objectives:

MI is a biotechnology class that follows up to materials students learned in PBS and HBS. Students follow the life of the fictitious Smith family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

Units: [MI Essential Questions](#)

Tri A Unit 1: How to Fight Infection (contagious disease, antibiotics, hearing, vaccinations)

Tri A Unit 2: How to Screen What is In Your Genes (genetic testing, genetic screening, gene therapy, reproductive technology)

Tri B Unit 3: How to Conquer Cancer (detecting cancer, treating cancer, nanotechnology)

Tri B Unit 4: How to Prevail When Organs Fail (protein production, organ failure, transplants)

Assessments: During each unit, there will be multiple quiz opportunities given to help assess where a student is with mastering the learning targets; *these quizzes will have retake opportunities*. Talk to Ms. Beulke about how to access the retakes.

Grades: most assignments will be submitted through Google Classroom. To see your actual grade in the class, look at your AH Connect account (lock and key on laptop) or StudentVUE app.

-70%: Assessments/Projects

-20%: Assignments

-10%: Professional Practice/Communication/Collaboration

Make-up Work: Anytime a student is absent, they should look at Google Classroom to see what happened during class that day. As long as you are a student in my class, you are responsible for what happens in class, no matter if you are in class or not! Due dates have plenty of time built in, so that even with a few absences, assignments should still be turned in on time. Please talk to Ms. Beulke if you feel you have circumstances that warrant extended time to complete work.

Late Work: Work will be submitted through Google Classroom. Again, if you feel you have circumstances that warrant extra time, please talk to Ms. Beulke personally. She does not expect to have issues with late work, since you are all upper level, responsible, mature students who know how to meet deadlines! ☺ It is really important that you stay caught up with the curriculum, so not having late work will help immensely!

Tardies: [CRHS Tardy Policy](#)

After tardies 1-3, contact will be made home. Starting with tardy 4 and thereafter, a referral will be completed.
Bottom line - BE ON TIME!!!!

Expectations:

- Be present and be prepared. Your time in class is limited and we want you to get the most out of it!
- Be respectful and courteous to yourself, classmates, and teacher.
- ALWAYS do your best. That's all anyone can ask of you - including yourself.
- Be a productive, responsible group member.
- Ask questions!! Ms. Beulke is a mom at heart and wants to help you succeed in any way she can.

Technology: [CRHS Cell Phone Policy](#)

Cell phones will be put away in the table bins and headphones/AirPods will be put in your backpack from bell to bell. If you need to check your grades, email, the time, etc....you have your Chromebook.

The case against cell phones

The mere presence of cell phones can impair our cognitive abilities

¹University of Nebraska, Lincoln (2016)
²Computers & Education (2013)

On average, students check their cell phones 11 times during class.¹

On average, students spend about 20% of class time using devices for activities unrelated to class.¹

80% of students agree that having a cell phone in class decreases their ability to pay attention.²

Biomed & Engineering Cell Phone Expectations

Before the bell rings:

1. Phone on **silent** and in **"airplane mode"**
2. Place your phone in the **shared bin**
3. **Snap the lid onto the bin** when everyone in your group has put their phone in the bin

Cell phone use is not permitted in any Biomed and Engineering classroom bell to bell.

