

LEARNER PROFILE PLTW MEDICAL INTERVENTIONS/BIOMEDICAL INNOVATIONS

STUDENT KNOWLEDGE BASE: Students must have a background knowledge of physiological concepts such as: molecular processes essential to life including: restriction enzymes, DNA replication processes, health and medicine related: microbiology, genetics, chemistry, and biochemistry. Some challenging work in this class includes applying eukaryotic and prokaryotic physiological processes to new situations.

PRE REQUISITES: The knowledge base comes from prerequisite courses such as PLTW PBS and HBS, Anatomy & Physiology, Chemistry, Biology. A student will have to have taken two years of these courses and applied themselves in order to remember the material. The preferred prior coursework sequence is PBS and HBS. Students come to this course with varying prerequisites based on if their high school has the PLTW Biomedical Sciences Program. All curriculum material is accessed online and all assignments are handed in on-line so students must have home internet or daily access to the internet.

RECOMMENDED COURSES: Students who tend to be most successful in the course have taken IB or AP Biology, IB or AP Chemistry or other upper level science and math courses completing these courses with an A or a B. Students should have a science GPA of a 3.0.

STUDENT MOTIVATION: STA assumes that the student's motivation to gain pre-requisite knowledge are strengths of the students and grounded in their desire to pursue a career in this field.

STUDENT CAREER PATH: This course is for students pursuing a career in medicine in any discipline that requires 4 years of college or more. Some career path examples include: research, physician, nursing, pharmacology, dentistry, veterinarian medicine and sports medicine.

STUDENT BELIEFS: Students must believe that this field of study is hard work. In your career, you will be faced with problems you cannot solve that involve people's lives and health. Previous course knowledge is applied to new situations and built on by studying how cellular and molecular concepts relate to human disease. Students believe studying at home and being professional is important.

STUDENT GRADES: To get A's in this class, students must be able to do technical reading by having a strong command of the English language and locating and capturing main topics and important biological molecular concepts out of an article, website or college level text. Students must be willing to study homework daily and make the course work a priority.

STUDENT ACTIONS: Students without pre-requisite knowledge; or memories of prerequisite knowledge will need to study outside of class often in addition to class homework. Students are expected to discuss with the instructor regarding their prerequisite knowledge and ways to overcome these barriers to understanding the course material. Students need to make studying course material a priority.

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