

SUMMARY

The District's Educational Services Department has recommended updates in our district-wide course catalog. When a course is discovered to be out of date or curriculum programs have made changes it is requested that the department team work together to bring the course of study current. The previous Project Lead the Way (PLTW) Biomedical Pathway was reclassified in Career Technical Education classes in the 2018 school year, and the credential requirements for these courses changed due to the reclassification. The Biomedical Pathway teachers revised these five courses to align with the current science standards and meet the Biological Sciences credential. These revised Biomedical Pathway courses for high school students meet the CSU/UC A-G Requirement of "D" Science Lab.

Principles of Biomedical Science (PBS) is a full-year high school course, the first in the Biomedical Science Pathway. This course provides foundational knowledge and skills in fields such as biology, anatomy & physiology, genetics, microbiology, and epidemiology, and engages students in how this content can be applied to real-world situations, cases, and problems. This course was revised from the PLTW Principles of Biomedical Sciences and meets the CSU/UC requirement of the "D" Science Lab.

Intro to Human Anatomy explores the major organ systems of the human body, emphasizing the relationship between structure and function, the interdependence of body systems, and the maintenance of homeostasis. It is an introductory life science course designed to prepare students for advanced coursework in the biological and health sciences and careers in nursing, medicine, physical therapy, sports medicine, health education, etc. This course was revised from the Anatomy and Physiology course and meets the CSU/UC requirement of the "D" Science Lab.

Honors Human Body Systems (HBS) is a full-year high school course that follows the Principles of Biomedical Science in the Biomedical Science pathway. The HBS course provides foundational knowledge and skills in anatomy and physiology, clinical medicine, and laboratory research. The course engages students in how this content can be applied to real-world situations, cases, and problems. The HBS course includes interviews, challenges, and testimonials from biomedical professionals in various settings—clinical, research, and public health. This course was revised from the PLTW Honors Human Body Systems course and met the CSU/UC requirement of the "D" Science Lab.

Honors Medical Interventions (MI) is a full-year high school course designed to follow Honors Human Body Systems (HBS) in the Biomedical Science pathway. Medical Interventions allow students to investigate the variety of interventions involved in preventing, diagnosing, and treating 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 various immunology, surgery, genetics, pharmacology, medical devices, and diagnostics interventions. This course was revised from the PLTW Honors Medical Interventions course and meets the CSU/UC requirement of the "D" Science Lab.

Honors Biomedical Innovations (BI) is a full-year high school course designed to follow Honors Medical Interventions (MI) in the Biomedical Science pathway. In this capstone course, students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. Students design innovative solutions for the health challenges of the 21st century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. They can work on an independent project and may work with a mentor or advisor from a university, hospital, physician's office, or industry. Throughout the course, students are expected to present their work to an adult audience that may include representatives from the local business and healthcare community. This course was revised from the PLTW Honors Biomedical Innovations course and meets the CSU/UC requirement of the "D" Science Lab.