

## PLTW Biomedical Academy (196)

Course Type	Course Code	Course Title	Course Description	Post Secondary Connection
Introductory Course	IS511H/512H	<b>PLTW Principles of Biomedical Honors</b>	Principles of Biomedical Science (PBS) is a Project Lead the Way (PLTW) curriculum honors course that provides an introduction to the biomedical sciences through exciting hands-on projects and problems. Students investigate concepts of biology and medicine as they explore health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They will determine the factors that led to the death of a fictional woman as they sequentially piece together evidence found in her medical history and her autopsy report. Students will investigate lifestyle choices and medical treatments that might have prolonged the woman's life and demonstrate how the development of the disease is related to changes in human body systems. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes and allow students to design experiments to solve problems.	A-G Approved
Concentrator	IS513H/514H	<b>PLTW Human Body Systems Honors</b>	Human Body Systems (HBS) is a Project Lead the Way (PLTW) curriculum honors course where students examine the interactions of body systems as they explore identity, communication power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real-world cases, and often play the role of biomedical professionals to solve medical mysteries.	A-G Approved
Capstone Course I	IS515H/516H	<b>PLTW Medical Interventions Honors</b>	Medical Interventions (MI) is a Project Lead the Way (PLTW) curriculum honors course where students follow the life of a fictitious 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.	A-G Approved
Capstone Course II	IS517H/518H	<b>PLTW Medical Innovations Honors</b>	In the final honors course of the PLTW Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent design project with a mentor or advisor from a university, medical facility, or research institution.	A-G Approved