

**What can you do with a biomedical science degree? Not only can the degree be a stepping stone to medical school, but it also opens the doors to an increasing number of careers in medical research, nutrition science and biomedical engineering.**



### Pathway Description:

Biomedical Science students have an opportunity to experience real-world challenges like those experienced by true biomedical science professionals. Students will work with the same tools used by professionals in hospital and lab settings; engage in fascinating, hands-on activities; and work together in groups and teams to find solutions to problems. Biomedical science students gain in-demand knowledge and skills, and leave high school with a skill-set they will use for the rest of their lives—in any career path they take.

### Key Competencies:

- Explore concepts of biology and medicine to determine factors that led to the death of a person
- Examine autopsy reports, investigate medical history, and explore medical treatments that lead to improving the health of individuals
- Examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis
- Build organs and tissues on a skeletal mannequin
- Use data acquisition software to monitor body functions
- Take on the roles of biomedical professionals to solve real-world medical cases
- Investigate how to prevent, diagnose, and treat diseases
- Explore how to detect and fight infection
- Screen and evaluate the code in human DNA
- Evaluate cancer treatment options
- Explore immunology, surgery, genetics, pharmacology, medical devices, and diagnostics as they relate to real-world cases
- Design innovative solutions for pressing health challenges of the 21<sup>st</sup> century
- Design a biomedical project with a mentor or advisor from a university, medical facility, or research institution

### Courses (HS Credits):

**Year 1:** Principles of Biomedical Science – PLTW (2)

**Year 2:** Human Body Systems – PLTW (2)

**Year 3:** Medical Interventions – PLTW (2)

**Year 4:** Biomedical Innovation – PLTW (2)

**College Credits:** 0

**Annual National Average Salary for Entry Level Biomedical Career: \$70,000**

### Career Opportunities:

Biomedical Scientist	Biotechnologist
Forensic Scientist	Clinical Biochemistry Scientist
Immunology Scientist	Medical Research Scientist
Microbiologist	Nanotechnologist
Science Writer	Environmental Engineer

