

# Discover BIOMEDICAL SCIENCES

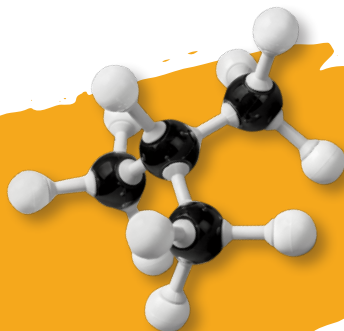
As a student in the 21st century, your future is at your fingertips. Whether you know exactly what you want or are still considering your options for the future, Butler Tech, in collaboration with Lakota Local Schools, provides you with possibilities to explore.

## Career & Technical Student Organizations & Competitions

Students enrolled in Butler Tech courses at Lakota may have the opportunity to participate in a variety of career and technical student organizations (CTSOs) at the regional, state and national levels. Students participate in activities designed to expand their leadership abilities, utilize their academic instruction in real-world settings, and encourage them to pursue their education in their career field of interest. Annually, more than 1,000 Lakota students participate at the state and national levels.

## Why Butler Tech Courses

An industry leader in teen education, Butler Tech provides career-technical education options beginning in the 7th grade on-site at Lakota Local Schools. Students who take Butler Tech courses are prepared to make important decisions about college and careers because our teachers and curriculum are driven by providing real-world experiences for students.



Butler Tech offers the following Biomedical Sciences courses in Lakota Local Schools:

- Biomedical Innovations
- Human Body Systems
- Medical Interventions
- Principles of Biomedical Sciences

**WE are  
Lakota**

## Butler Tech Biomedical Sciences Course Offerings at Lakota

*Offered at Lakota East and West Campuses*

### Biomedical Innovations (BI)

ZSPT4 | 2 semesters / 1 credit

In this capstone course, students will apply their knowledge and skills to answer questions or solve problems related to biomedical science. Students will design innovative solutions for the health challenges of the 21st century as they work through open ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering and public health.

*Prerequisite: Medical Interventions (MI)*

### Human Body Systems (HBS)

Z2253 East / Z2254 West | 2 semesters / 1 credit

In this Project Lead the Way course students examine the interactions of human body systems as they explore identity, 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 such as muscle movement, reflex and voluntary action, and respiration.

*Prerequisite: Successful completion of Principles of the Biomedical Sciences (PBS)*

### Medical Interventions (MI)

ZSPT3 | 2 semesters / 1 credit

Students investigate a variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the life of a fictitious family. The course is a “How-To” manual for maintaining overall health and homeostasis in the body. Students explore how to prevent and fight infection; screen and evaluate the code in human DNA; prevent, diagnose and treat cancer; and prevail when the organs of the body begin to fail. Through these scenarios, students are exposed to a range of inventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

*Prerequisite: Human Body Systems (HBS)*

### Principles of Biomedical Sciences (PBS)

Z2248 East / Z2250 West | 2 semesters / 1 credit

In this Project Lead the Way course students explore biology concepts through the study of human diseases. Students determine the factors that led to the death of a fictional person, and investigate lifestyle choices and medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, medicine, and research processes.

