

## **COLLEGE TECH PREP**

# Biomedical Engineering and Technology Academy STEM

This emerging science focuses on applying the principles of engineering and technology to life sciences. The format of this Tech Prep Initiative is discovery-based, with an emphasis on current technology, developments and research. Students will focus on modern field usage of biotechnology in engineering, pharmaceuticals, medicine, agriculture and others. Level II will incorporate a required capstone project. Throughout this two-year offering, bioethics and entrepreneurship will be included. In addition, connections with area biomedical industries will be available to students.

# Skills necessary for success

- · Creative problem solver
- Technology/media skills
- · Task-oriented
- Demonstrates written and verbal communication skills
- · Works with information, ideas and products
- · Conceptual thinker

#### **Areas of concentration**

- Microbiology
- · Anatomy/Physiology
- · Bioethics
- Entrepreneurship
- Technical tools
- 3D Imaging/Technology
- Engineering of medical devices

## **Program recommendations**

- · Average 95% attendance for three previous semesters
- Average of G.P.A. of 2.8 for Algebra 1, English and science for three previous semesters
- Chemistry
- Pre-Calculus
- Geometry

### **Required-Prerequisites**

- Algebra 1
- · Physical Science
- Biology
- · CP English

## **Higher education opportunities**

- College credits available at The University of Akron, College of Engineering. See page 32.
- Bachelor's Degree

**GRADE LEVEL: 10, 11, 12** 

**LENGTH: Two years** 

**SCHOOL: Woodridge High School** 

#### **CREDIT:**

Level I - Lab 1; Technical Theory 1; Honors English 1; Anatomy/Physiology 1.

Level II - Lab 1; Technical Theory 1; Honors English 1; Honors Physics 1; Capstone Project.