



# CAREER & TECHNICAL EDUCATION



## ENGINEERING AND ARCHITECTURE

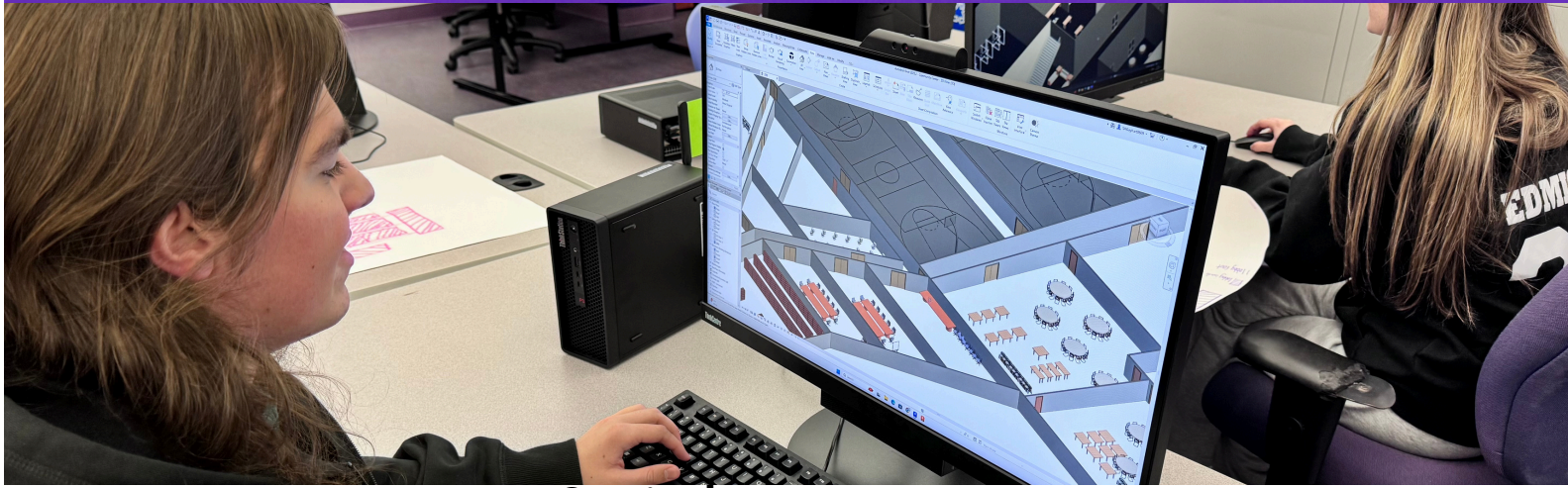


**JACKSON  
HIGH SCHOOL**  
330-837-3501





# ENGINEERING AND ARCHITECTURE



## Curriculum

This is a two-year program. Please note: This program is offered in cooperation with Hoover High School. JUNIORS will take these foundation courses at Hoover HS periods 1 and 2 and return to Jackson for the rest of the day. SENIORS will take these Specialization and Capstone Courses at Jackson HS

This is a 2 year program

### **Junior Year Program at Hoover High School (2 periods - 2 credits)**

**Project Lead the Way courses completed during Junior year of this 2 year program include:**

**Introduction to Engineering Design** - This course exposes students to the design process, research and analysis, communication and technical documentation methods, global and human impacts and engineering standards. Students use 3D solid modeling design software to help them design solutions to solve proposed problems and learn how to document and communicate their work to the professional community.

**Principles of Engineering** - This survey course exposes students to the major concepts they'll encounter in a college or engineering program. Students employ engineering and scientific concepts in the solution of engineering design problems. They develop problem-solving skills and apply their knowledge of research and design to create, document and communicate their solutions.

### **Senior Year Program at Jackson HS (2 periods, 2 credits)**

**Project Lead the Way courses completed during Senior year of this 2 year program include:**

**Engineering Design and Development** - This is an engineering research course in which students will work in teams to research, design, test and construct a resolution to an open-ended engineering problem. The product development life cycle and design process are used to guide and help the team to reach the solution. The team presents and defends their position to a panel of outside reviewers at the conclusion of the course. This capstone course allows students to apply all the skills and knowledge learned.

**Civil Engineering and Architecture** - Students will apply knowledge about various aspects of civil engineering and architecture to the design and development of a property. Working in teams, students explore hands-on activities and projects to learn the characteristics of civil engineering and architecture. Students will use the 3D design software to develop a design solution to apply to major course projects.

For More Information  
330-837-3501

Keith Kohmann, Engineering Instructor, ext 1507  
Donna Jeffers, Assistant Principal,  
Career & Tech Director, ext. 1407

**JACKSON  
HIGH SCHOOL**