



## Courses

The Engineering and Technology Design program is designed for students interested in the various disciplines of engineering.

The sequence of courses will provide students with the opportunity to develop critical thinking skills and understanding of engineering concepts. Students then apply these skills in conjunction the engineering design process to solve real-world problems. It includes instruction in two dimensional and/or three dimensional engineering design software, solid modeling and engineering animation to solve real-world problems.

### College & Career Options

- Post secondary studies
- Engineers
- Architects
- Cad designers

### Engineering I (210221) - Grades 8-12

#### Learn and Engage

Learn about the design process  
Perform modeling and create prototype  
Basic CAD functions

#### Learn and Engage

Sketch and build projects  
Authentic projects with CAD  
Design and test with Dragster and Bridges

### Engineering II (210222) OR Architecture Design (210140) - Grades 9-12

#### Learn and Engage

Apply the design process  
Create models and prototypes  
Develop understanding of 2D and 3D CAD

#### Learn and Engage

Earn Auto Desk Inventor certification  
CNC milling  
Laser engraving

### Architecture Design (210140) OR Dual Credit NKU CAD I (EGT 212) - Grades 10-12

#### Learn and Engage

Earn Auto Desk Inventor certification  
CNC milling  
Laser engraving

#### Learn and Engage

Earn Auto Desk Certification  
Sketch and build projects with 3D software  
Authentic projects and 3D printing

### Engineering Capstone (UC Dual Credit ) - Grades 11-12 or Engineering Co-op (210330) - Grades 12

#### Learn and Engage

Apply the design process involving problems  
Demonstrate competencies in 2D and 3D

#### Learn and Engage

Work in teams to solve problems  
Produce- CNC, milling, 3D, laser engraving

### Internship (210331) - Grade 12

#### Learn and Engage

Apply the design process involving problems  
Develop 2D and 3D drawings

#### Learn and Engage

Work in teams to solve problems  
Produce- CNC, milling, 3D, laser engraving