



# **REGIONAL CAREER PATHWAY PROGRAM**

Northern Kane County

REGION 110

EDUCATION THAT

The Regional Career Pathways programs are designed to offer high-quality Career and Technical Education programs to students who are unable to access programs in their home districts. All of the selected programs are nationally recognized and offer students the opportunity to earn industry-recognized credentials before graduation. Any student residing within the boundaries of Community Unit School District 300, Central Community Unit School District 301, St. Charles Community Unit School District 303, or School District U-46 who is in good standing and meets program requirements is eligible to apply for admission to the program. **Transportation: Provided by each student's home school district** 

## WELDING

The Welding program is a joint venture between School District U-46 and Community School District 300. The program is housed at Elgin High School in School District U-46 and Hampshire High School in Community School District 300. The program is accredited through the American Welding Society.

## FUNDAMENTALS OF WELDING

Length: Year-long 1 period class

# Grade Level: 10th Prerequisite: None

**Content:** This course enables students to gain knowledge of the properties, uses, and applications of various metals, skills in various processes used to join and cut metals (such as oxyacetylene, shielded metal, metal inert gas, and tungsten arc processes), and experience in identifying and selecting appropriate techniques. This course includes welding safety, blueprint reading, welding symbols, welding practices, and welding fabrication techniques.

### WELDING I

Length: Year-long 2 period class

#### Grade Level : 11th Prerequisite: Fundamentals of Welding

**Content:** This course assists students in gaining knowledge and developing the basic skills needed to be successful in welding technology. Units of instruction include arc, TIG and MIG welding, metallurgy, cutting metal using arc, plasma, and oxy-gas. In addition, students learn the basics of blueprint reading, welding symbols, precision measuring, layout, and production process planning. Students will also perform 3G vertical up welding for evaluation for American Welding Society certification.

## WELDING II

Length: Year-long 2 period class

## Grade Level : 12th

## Prerequisite: Welding I

**Content:** This course builds on the skills and concepts introduced in Welding Technology I and will provide more in-depth skill development in various types of welding including horizontal, vertical, overhead, and circular techniques as well as 3G certification welds for MIG and TIG. Units of instruction include advanced out of position arc, TIG and MIG welding, industry weld fabrication techniques and welding print interpretation and process organization. In addition, the students will learn to analyze weld quality and troubleshoot problem welds.

# INDUSTRY CREDENTIALS AVAILABLE

SMAW (stick) Welding 1G-4G certification, GMAW (MIG) Welding 1G-4G certification, GTAW (TIG) Welding 1G-4G certification



