Advanced Manufacturing and Robotics Technologies

Department: Industrial Technologies
Degree: Associate of Applied Science
Entry time: Fall
Length: 2 years (4 semesters and 1 summer)

• **Kibbie Grant:** Students in this program may be eligible to have half their tuition paid for by the Kibbie Grant. Go to [www.kirkwood.edu/Kibbie](http://www.kirkwood.edu/Kibbie) for more details.

• Kirkwood has **six heavy-payload robots** that were donated by a local business partner.

• There are **three robotic weld cells** that students learn to program and operate.

• The **instructors work closely with industry partners** to ensure they are teaching the latest techniques and utilizing the latest equipment.

• The **program is unique** by combining several different disciplines such as robotics programming and integration, welding, CNC machining and programming, fabrication and engineering.

• **Advanced Manufacturing Sector Board** meets monthly to discuss industry needs and college curriculum.

• Instructors work with students to unlock their **potential** and prepare them for their **careers**.

• Graduates of this program can go on to **complete a four-year degree at the University of Northern Iowa**.

**Program Description**
This multi-skilled degree prepares you for an exciting and rewarding career in the high demand advanced manufacturing careers of product design, CNC machining/forming, production welding and quality control. Possessing multiple skill sets in today's workforce prepares you for career advancements and increased earnings throughout your lifetime.

At Kirkwood, students learn on the latest equipment and robot technology while being taught by instructors who are passionate about the industry. Graduates are job-ready when they leave the program.

**Career Opportunities**
Laser cutter operator
Robotics engineer
Robotics technician
CNC mill operator
CNC lathe operator
MIG welder
CAD designer
Quality control inspector

**Sample Classes**
Job Planning, Benchwork & Layout (NIMS)
Measurement, Materials & Safety (NIMS)
Microcomputer Applications
Technical Mathematics
Physics
Applied Statics
Applied Metallurgy
CNC Mill Operator (NIMS)
CNC Lathe Operator (NIMS)
Robot Machine Integration

**Statistical Process Control**
AutoCAD for Applied Engineering
Laser Cutting Operations
Programming for Advanced Manufacturing
Industrial Robotics
PLTW-Computer Integrated Manufacturing

**Certificate Options**
Short-term training options are available by earning a certificate. Certificate options for Advanced Manufacturing and Robotics Technologies include:

**Industrial Robotics Certificate**
1 year (3 semesters)

**Industry endorsements earned:**
OSHA 10-Hour General Industry; Adult First Aid with CPR; Personal Protective Equipment; Forklift Class 1, 3, 4, 5, 7; NIMS Level 1: CNC Lathe and Mills Credentials; American Welding Society MIG and TIG welder qualifications; National Career Readiness Certificate.

**Scholarships**
Kirkwood will help you pay for college! Kirkwood awards more scholarships than any other community college in Iowa. For more information and to apply, visit [www.kirkwood.edu/scholarships](http://www.kirkwood.edu/scholarships).