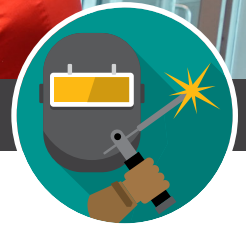




GEAR UP FOR AN EXCITING CAREER IN ADVANCED MANUFACTURING



Start your journey with Eastern Iowa Community Colleges'

Advanced Manufacturing Academy

ADVANCED MANUFACTURING IS...

- ▶ Important for every industry
- ▶ Fast-paced, hands-on work
- ▶ Results-driven
- ▶ In-demand for more skilled workers

ADVANCED MANUFACTURING CAREERS PROVIDE...

- ▶ High paying salaries and great benefits
- ▶ Job security
- ▶ Growth and development
- ▶ An active lifestyle

CAREERS IN ADVANCED MANUFACTURING

CNC Machining (Computer Numerical Control)

You'll set up and operate a variety of computer-controlled and mechanically-controlled machine tools to produce precision metal parts, instruments, and tools.

Engineering Technology

Is vital to manufacturing companies and includes industrial equipment repair, digital electronic equipment usage, maintenance strategies, and more.

Environmental, Health and Safety

Assist in the management, regulation, and compliance of hazardous materials and waste in organizations, thus protecting workers and the environment.

Heating, Ventilation and Air Conditioning (HVAC)

Repair, maintain, and install a wide variety of heating, air conditioning, refrigeration, and ventilation systems.

Mechanical Design

Aide engineers in design and development work by preparing detailed drawings depicting exact dimensions and specifications.

Renewable Energy

Technicians complete tasks such as electrical wiring, mechanical installation, site analysis, and troubleshooting.

Welding

Use a variety of welding tools and equipment to cut and join metals and other materials together. Welders read and interpret technical documents, adhere to safety standards, and have a strong attention to detail.

Updated 11/22

It is the policy of Eastern Iowa Community College District not to discriminate in its programs, activities, or employment on the basis of race, color, national origin, sex, disability, age, sexual orientation, gender identity, creed, religion, and actual or potential family, parental or marital status, as required by the Iowa Code §§216.6 and 216.9, Titles VI and VII of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d and 2000e), the Equal Pay Act of 1973 (29 U.S.C. § 206, et seq.), Title IX (Educational Amendments, 20 U.S.C. §§ 1681-1688), Section 504 (Rehabilitation Act of 1973, 29 U.S.C. § 794), and Title II of the Americans with Disabilities Act (42 U.S.C. § 12101, et seq.). If you have questions or complaints related to compliance with this policy, please contact EICC's Equal Employment Opportunity Officer/Equity Coordinator, Eastern Iowa Community College District, 101 West Third Street, Davenport, Iowa 52801, 563-336-5222, equity@eicc.edu or the Director of the Office for Civil Rights U.S. Department of Education, John C. Kluczynski Federal Building, 230 S. Dearborn Street, 37th Floor, Chicago, IL 60604-7204, Telephone: (312) 730-1560 Facsimile: (312) 730- 1576, TDD (800) 877-8339 Email: OCR.Chicago@ed.gov.



Learn more at eicc.edu/academies • Toll-free at 1-888-336-3907 • Email eiccinfo@eicc.edu

Advanced Manufacturing Academy

DURING HIGH SCHOOL

TERM 1: Fall, senior year of high school, 6 credits

- ELE:101 Industrial Safety, 1 credit
- ELE:216 DC Circuit Analysis, 3 credits
- MAT:705 Industrial Math and Measurement I, 2 credits

TERM 2: Spring, senior year of high school, 7 credits

- ELE:217 AC Circuit Analysis, 3 credits
- IND:134 Print Reading, 2 credits
- MAT:706 Industrial Math and Measurement II, 2 credits

**AWARD: BASIC ELECTRICITY
CERTIFICATE (13 CREDITS)**

AFTER HIGH SCHOOL

TERM 3: Fall, taken at the college, 15 credits

- CSC:112 Computer Fundamentals for Technicians I/A, 2 credits
- CSC:113 Computer Fundamentals for Technicians I/B, 2 credits
- ELE:225 Electrical Motor Control & Power Distribution, 3 credits
- ELT:309 Digital Circuits, 3 credits
- ELT:312 Solid State Devices & Systems, 3 credits
- PHY:185 Conceptual Physics Fundamentals I, 2 credits

**AWARD: BASIC ELECTRONICS
CERTIFICATE (27 CREDITS)**

TERM 4: Spring, 13 credits

- EGT:117 Fluid Power Fundamentals, 2 credits
- ELT:123 Programmable Logic Controllers, 3 credits
- ENG:107 Composition I: Technical Writing, 3 credits
- PHY:186 Conceptual Physics Fundamentals II, 2 credits
- **PICK ONE**, 3 credits each:
 - ECN:120
 - HUM:105
 - HUM:110
 - POL:111
 - PSY:111
 - SOC:110

**AWARD: ENGINEERING TECHNOLOGY
ELECTROMECHANICAL DIPLOMA (35 CREDITS)**

TERM 5: Summer, 7 credits

- ELT:125 Advanced PLC, 3 credits
- IND:143 Motors and Drives, 3 credits
- MFG:505 Lean Manufacturing, 1 credit

SELECT A TRACK

TERM 6: Fall, **AUTOMATION**, credit varies

- ATR:105 Industrial Robotics, 3 credits
- ATR:106 Motion Control, 3 credits
- ELT:177 Microcontrollers, 3 credits
- **PICK TWO:**
 - CHM:122 Intro to Gen Chem
 - EGT:145 Fluid Power Maintenance
 - EGT:137 Fluid Power Control
 - IND:136 Process Control I
 - IND:137 Process Control II

OR

TERM 6: Fall, **ELECTROMECHANICAL**, credit varies

- ATR:106 Motion Control, 3 credits
- EGT:145 Fluid Power Maintenance, 4 credits
- EGT:137 Fluid Power Control, 4 credits
- **PICK TWO:**
 - ATR:105 Industrial Robotics
 - CHM:122 Intro to Gen Chem
 - ELT:177 Microcontrollers
 - IND:136 Process Control I
 - IND:137 Process Control II

OR

TERM 6: Fall, **PROCESS CONTROL**, credit varies

- CHM:122 Introduction to General Chemistry, 4 credits
- IND:136 Process Control I, 3 credits
- IND:137 Process Control II, 3 credits
- **PICK TWO:**
 - ATR:105 Industrial Robotics
 - ATR:106 Motion Control
 - EGT:137 Fluid Power Control
 - EGT:145 Fluid Power Maintenance
 - ELT:177 Microcontrollers

**AWARD: ENGINEERING TECHNOLOGY
AAS (62–64 CREDITS)**