

## INACTIVE PROGRAM

### **(069) Associate in Applied Science**

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The manufacturing technology program is designed to develop a strong foundation for understanding basic manufacturing-related technologies. The program provides students with an introduction to most of the trades they encounter on-the-job and is flexible enough to allow some specialization. Course work covers mechanics, electricity and electronics, quality control and basic work-place skills (general education).

#### **Work and Employment**

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In our society, industries of one type or another produce almost all of our nation's goods. These industries rely on the machines, including robots that industrial mechanics maintain and repair. Maintenance workers in this field also care for buildings and work on plumbing, electrical, air conditioning and heating systems.

#### **Special Considerations**

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Workers usually have the following skills and aptitudes: work carefully and precisely, with little supervision; use shop mathematics, and show mechanical aptitude; are observant, accurate, detail oriented, and problem solvers.

#### **Program Contacts at Sauk Valley Community College**

Counseling Office, 815/835-6208;

Loren Niemeyer, Assistant Instructor of Electronics, 815/835-6296;

Steven McPherson, Assistant Professor of Electronics/Technology, 815/835-6347.

#### Major Field Requirements

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#### Technical Requirements

- EET 107 - Introduction to DC and AC Circuits 4 Semester hour(s)
- EET 245 - Programmable Controllers 3 Semester hour(s)
- EET 252 - Industrial Electronics 3 Semester hour(s)
- ELT 262 - Electrical Controls 3 Semester hour(s)
- IND 105 - Industrial Computers Applications 2 Semester hour(s)
- IND 116 - Industrial Print Reading 3 Semester hour(s)
- IND 125 - Machining and Manufacturing Processes 4 Semester hour(s)
- IND 203 - Advanced Machining and Manufacturing Processes 3 Semester hour(s)
- IND 207 - Beginning Computer Numerical Control 3 Semester hour(s)
- IND 208 - Advanced Computer Numerical Control 2 Semester hour(s)
- IND 250 (1) - Industrial Internship 1 Semester hour(s)
- IND 214 - Industrial Hydraulics 2 Semester hour(s)
- IND 216 - Industrial Pneumatics 2 Semester hour(s)

Total Hours for Major Field Requirements: 36

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#### General Education Requirements - Sem/Hrs: 20

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- Communications (ENG 101, ENG 111 required) 6 Semester hour(s)
- Mathematics 3 Semester hour(s)
- Humanities/Fine Arts 3 Semester hour(s)
- Social/Behavioral Science 3 Semester hour(s)
- Physical/Life Science (PHY 175) 4 Semester hour(s)
- Orientation (PSY 100) 1 Semester hour(s)

#### General Electives

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(ELT, IND, EET, DFT, QLT) 8 Sem/Hrs

Total Hours Required for A.A.S; 64

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### Suggested Program

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First Semester - Sem/Hrs: 16

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- Mathematics (MAT 106 or higher) 3 Semester hour(s)
- ELT 101 - Electrical Wiring 3 Semester hour(s)
- or
- ELT 160 - Fundamentals of Electricity 3 Semester hour(s)
- IND 105 - Industrial Computers Applications 2 Semester hour(s)
- IND 116 - Industrial Print Reading 3 Semester hour(s)
- IND 125 - Machining and Manufacturing Processes 4 Semester hour(s)

Second Semester - Sem/Hrs: 17

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- EET 107 - Introduction to DC and AC Circuits 4 Semester hour(s)
- EET 252 - Industrial Electronics 3 Semester hour(s)
- ELT 262 - Electrical Controls 3 Semester hour(s)
- ENG 101 - Composition I 3 Semester hour(s)
- PHY 175 - Introduction to Physics 4 Semester hour(s)

Third Semester - Sem/Hrs: 16

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- Electives (EET, ELT, IND, MET, QLT, DFT) 5 Semester hour(s)
- Humanities/Fine Arts 3 Semester hour(s)
- or
- Social/Behavioral Science 3 Semester hour(s)
- EET 245 - Programmable Controllers 3 Semester hour(s)
- IND 207 - Beginning Computer Numerical Control 3 Semester hour(s)
- IND 214 - Industrial Hydraulics 2 Semester hour(s)

Fourth Semester - Sem/Hrs: 15

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- Humanities/Fine Arts 3 Semester hour(s)
- or
- Social/Behavioral Science 3 Semester hour(s)
- ENG 111 - Business and Technical Communication 3 Semester hour(s)
- IND 203 - Advanced Machining and Manufacturing Processes 3 Semester hour(s)
- IND 208 - Advanced Computer Numerical Control 2 Semester hour(s)
- IND 250 (1) - Industrial Internship 1 Semester hour(s)
- IND 216 - Industrial Pneumatics 2 Semester hour(s)

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