

## INACTIVE PROGRAM

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

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This program, designed to prepare a student to be a technician in manufacturing and allied industries, includes foundation courses in mathematics and sciences and a pattern of technical courses in mechanical technology. A graduate is qualified to seek employment as a general draftsman, mechanical designer, research assistant, engineering technician, CAD drafter, and CAD designer.

#### **Work and Employment**

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Mechanical engineering technicians help engineers design, develop, test, and manufacture machinery, industrial robotics, and other equipment. They make sketches and rough layouts, record data, make computations, analyze results, and write reports. When planning production, mechanical engineering technicians prepare layouts and drawings of the assembly process often utilizing CAD (computer-aided drafting) systems. Like engineers, employment of engineering technicians is influenced by local and national economic conditions.

#### **Special Considerations**

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Workers usually have the following skills and aptitudes: can sketch out details; are able to visualize objects from drawings; move hands skillfully; are detail-oriented, accurate and observant, creative, patient, systematic and neat.

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

Counseling Office, 815/835-6208;

Major Field Requirements - Sem/Hrs: 35

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- DFT 104 - Basic Technical Drawing 2 to 4 Semester hour(s)
- DFT 121 - Geometric Dimensioning and Tolerancing 2 Semester hour(s)
- DFT 209 - Advanced Computer-Aided Drafting 3 Semester hour(s)
- DFT 210 - Three Dimensional Drafting 2 Semester hour(s)
- EGR 103 - Engineering Graphics 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 250 (1) - Industrial Internship 1 Semester hour(s)
- MET 212 - Strength of Materials 4 Semester hour(s)
- IND 214 - Industrial Hydraulics 2 Semester hour(s)
- IND 216 - Industrial Pneumatics 2 Semester hour(s)
- MET 242 - Machine Design 3 Semester hour(s)

\*Related Requirements:

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Select 9 semester hours from courses with the following prefixes: DFT, EET, ELT, IND, MET, QLT.

General Education Requirements - Sem/Hrs: 20

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- Communications 6 Semester hour(s)
- Humanities/Fine Arts 3 Semester hour(s)
- Social/Behavioral Science 3 Semester hour(s)
- Physical/Life Science (PHY 175 or higher level physics course required) 4 Semester hour(s)
- Mathematics (MAT 106 or higher required) 3 Semester hour(s)

Total Required for A.A.S. Degree: 64

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## Suggested Program

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### First Semester - Sem/Hrs: 15

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- Mathematics (MAT 106 or higher) 3 Semester hour(s)
- DFT 104 - Basic Technical Drawing 2 to 4 Semester hour(s)
- EGR 103 - Engineering Graphics 3 Semester hour(s)
- IND 105 - Industrial Computers Applications 2 Semester hour(s)
- IND 116 - Industrial Print Reading 3 Semester hour(s)

### Second Semester - Sem/Hrs: 17

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- Technical Electives (DFT 106 recommended) 3 Semester hour(s)
- DFT 209 - Advanced Computer-Aided Drafting 3 Semester hour(s)
- DFT 210 - Three Dimensional Drafting 2 Semester hour(s)
- DFT 121 - Geometric Dimensioning and Tolerancing 2 Semester hour(s)
- PHY 175 - Introduction to Physics 4 Semester hour(s)
- ENG 101 - Composition I 3 Semester hour(s)

### Third Semester - Sem/Hrs: 16

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- Technical Electives 3 Semester hour(s)
- Humanities/Fine Arts 3 Semester hour(s)
- IND 125 - Machining and Manufacturing Processes 4 Semester hour(s)
- MET 212 - Strength of Materials 4 Semester hour(s)
- IND 214 - Industrial Hydraulics 2 Semester hour(s)

### Fourth Semester - Sem/Hrs: 16

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- Technical Electives 3 Semester hour(s)
- Social/Behavioral Science 3 Semester hour(s)
- ENG 111 - Business and Technical Communication 3 Semester hour(s)
- IND 250 (1) - Industrial Internship 1 Semester hour(s)
- IND 216 - Industrial Pneumatics 2 Semester hour(s)
- MET 242 - Machine Design 3 Semester hour(s)

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