

## INACTIVE PROGRAM

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

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Graduates of the Sustainable Technologies program area are prepared to enter the work force as green technology technicians. They will have a varied background of green energy technologies including solar, geothermal and small wind. They will have knowledge in electrical, electronics, and fluid power components and acquire troubleshooting skills on those components. Graduates of the program may pursue certification in their field. During the initial semester of enrollment in the program, students will be required to provide proof of successful completion of or pass the National Career Readiness Certificate (WorkKeys) exam. Those students who do not have proof of successful completion at the end of the first semester will be required to take the Certified Manufacturing Assistant course (IND 101) during the next semester.

### **Work and Employment**

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Graduates of this program are prepared to work as field service technicians, installers, or manufacturing technicians. Graduates may supervise technicians in the assembly, installation, repair, maintenance, calibration, and modification of solar, geothermal, and wind energy.

### **Special Considerations**

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Workers usually have the following skills and aptitudes: the ability to do precise and detailed work, use good eye-hand coordination, notice and compare differences in objects, have mathematical and mechanical aptitudes, are analytic, curious, and creative.

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

Academic Advising, 815/835-6354;

Christopher Carlson, Assistant Professor of HVAC, 815/835-6221;

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

Major Field Requirements - Sem/Hrs: 38

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- EET 110 - Introduction to Digital Electronics 4 Semester hour(s)
- EET 245 - Programmable Controllers 3 Semester hour(s)
- ELT 160 - Fundamentals of Electricity 3 Semester hour(s)
- ENE 102 - Small Wind Energy\*\* 3 Semester hour(s)
- ENE 130 - Photovoltaics 3 Semester hour(s)
- ENE 135 - Renewable Energy\*\* 3 Semester hour(s)
- ENE 140 - Solar Thermal Energy\*\* 3 Semester hour(s)
- ENE 145 - Geothermal Energy\*\* 3 Semester hour(s)
- ENE 150 - Energy Audit\*\* 3 Semester hour(s)
- HRS 105 - Refrigeration Principles\*\* 3 Semester hour(s)
- IND 116 - Industrial Print Reading 3 Semester hour(s)
- IND 131 - OSHA Standards 1 Semester hour(s)
- IND 218 - Fluid Power 3 Semester hour(s)

General Education Requirements: Sem/Hrs: 16

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- Communications (ENG 101 and ENG 111 Required) 6 Semester hour(s)
- Humanities/Fine Arts **OR** Social/Behavioral Science 3 Semester hour(s)
- Mathematics (MAT 106 or higher Required) 3 Semester hour(s)
- Physical Life Science (PHY 175 Required) 4 Semester hour(s)

SVCC Degree Requirement - Sem/Hrs: 1

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- FYE 101 - First Year Experience 1 Semester hour(s)

Electives - Sem/Hrs: 6

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- Any additional ENE, EET, ELT, HRS or IND courses 6 Semester/hour(s)

Total Hours Required for A.A.S. Degree: 61

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Suggested Program

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First Semester - Sem/Hrs: 17

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- Elective or IND 101 3 Semester/hour(s)
- EET 110 - Introduction to Digital Electronics 4 Semester hour(s)
- ELT 160 - Fundamentals of Electricity 3 Semester hour(s)
- ENE 135 - Renewable Energy\*\* 3 Semester hour(s)
- FYE 101 - First Year Experience 1 Semester hour(s)
- IND 116 - Industrial Print Reading 3 Semester hour(s)

Second Semester - Sem/Hrs: 16

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- Humanities/Fine Arts **OR** Social/Behavioral Science 3 Semester hour(s)
- EET 245 - Programmable Controllers 3 Semester hour(s)
- ENE 140 - Solar Thermal Energy\*\* 3 Semester hour(s)
- IND 131 - OSHA Standards 1 Semester hour(s)
- IND 218 - Fluid Power 3 Semester hour(s)
- MAT 106 - Applied Mathematics 3 Semester hour(s)

Third Semester - Sem/Hrs: 13

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- ENE 150 - Energy Audit\*\* 3 Semester hour(s)
- ENG 101 - Composition I 3 Semester hour(s)
- HRS 105 - Refrigeration Principles\*\* 3 Semester hour(s)
- PHY 175 - Introduction to Physics 4 Semester hour(s)

Fourth Semester - Sem/Hrs: 15

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- Electives 3 Semester hour(s)
- ENE 102 - Small Wind Energy\*\* 3 Semester hour(s)
- ENE 130 - Photovoltaics 3 Semester hour(s)
- ENE 145 - Geothermal Energy\*\* 3 Semester hour(s)
- ENG 111 - Business and Technical Communication 3 Semester hour(s)

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