Electronic/Computer Controls

Associate in Applied Science Degree—63 Credit hours
Curriculum Code 1281

The program prepares you for entry-level positions as an electronic controls technician found in manufacturing, chemical plants, process control environments, and packaging and automated warehouse environments. Be ready to explore a rewarding career at the forefront of the technological revolution in the automation of industrial and office environments. Each course focuses on developing skills required for various computer/electronics positions. Electrical, electronic industrial, PC, and PLC controls are examined. Lab exercises simulate real-world problems that technicians confront daily on the job.

Electronics Technician
Certificate—18 Credit hours
Curriculum code 1282

Be prepared for a variety of entry-level positions in electronics. You’ll learn to install, service, and replace analog and electronic components and systems. Graduates of this program pursue jobs as electronic technicians, computer technicians, field technicians, and electronic installer/repairers. You may choose to continue in the electronics program and apply all of the courses in this certificate to the Electronic Controls Technician Certificate and the Electronic/Computer Controls Technician A.A.S. degree. You also can apply the ELT and MTH courses to the Integrated Systems Technology A.A.S. degree.
Integrated Systems

Industrial Controls Technician
Certificate—9 Credit hours
Curriculum Code 1364
If you would like to work in career fields of Industrial Electrical Maintenance, this is the program for you. You will receive training in electrical controls and can explore jobs in such career fields as electrical and electronics installers and repairers. This program is associated with the college's Integrated Systems Technology A.A.S degree. The IST career path prepares students for entry-level positions as electrical and mechanical technicians found in bakeries, manufacturing, chemical plants, and materials handling and automated warehouse environments.

Fluid Power Technician
Certificate—8 Credit hours
Curriculum code 1367
This certificate gives you the skills you need to work in career fields of Industrial Maintenance. This certificate prepares students for entry-level positions in Industrial Maintenance and Fluid Power. Industrial Maintenance personnel often work with hydraulic and pneumatic systems and controls. This program is associated with the college's Integrated Systems Technology A.A.S degree. The IST career path prepares students for entry-level positions as electrical and mechanical technicians found in bakeries, manufacturing, chemical plants, and materials handling and automated warehouse environments.

Mechanical and fluid Power Maintenance
Certificate—40 credit hours
Curriculum Code 1275
This program prepares students in three main areas important to maintenance personnel, including communications, mechanical systems, and fluid power systems. You will be equipped for employment in facility maintenance, service maintenance and production maintenance fields. This program combines classroom instruction with considerable hands-on experience in the college's Center for Contemporary Technology. You will work on the same type of equipment that is used by business and industry today. This program is intended to lead to employment. If you are considering transferring to a four-year college or university using the courses from this program, make an appointment with an academic advisor to review your options.

Integrated Systems Technology
Associate in Applied Science Degree—63 credit hours
Curriculum Code 1403
This unique program readies you for career opportunities that involve cross-training in the areas of electrical, mechanical, electronic systems, and high-tech equipment that involves multiple, integrated systems. Students will learn how to operate, troubleshoot, and maintain these systems and high-tech equipment. If you're beginning training to pursue a career in this field, this program is for you. It also focuses on those who already are working in the industry who need to upgrade their skills for the on-the-job tasks, new supervisory responsibilities or career growth. This program is intended to lead to employment. Students considering transfer to a four-year college or university to obtain a bachelor's degree using the courses from this program should make an appointment with an academic advisor to review your options.

Industrial Maintenance Technician
Certificate—23 credit hours
Curriculum Code 1368
Classes in this program help you be prepared to work in career fields of industrial electrical maintenance. You will receive training in electrical controls, which can lead to such career fields as electrical and electronics installers and repairers. This program is associated with the college's Integrated Systems Technology A.A.S degree. The IST career path prepares students for entry-level positions as electrical and mechanical technicians found in bakeries, manufacturing, chemical plants, and materials handling and automated warehouse environments.

Mechanical Drive Technician
Certificate—8 Credit hours
Curriculum code 1366
This program gives you the skills you need to work in career fields of Industrial Maintenance Mechanic, such as mechanical drive systems using belts, chains and gears. Jobs working with mechanical Drive Systems can be found in such career areas as industrial machinery mechanics. This program is associated with the college's Integrated Systems Technology A.A.S degree. The IST career path prepares students for entry-level positions as electrical and mechanical technicians found in bakeries, manufacturing, chemical plants, and materials handling and automated warehouse environments.

PLC Technician
Certificate—18 credit hours
Curriculum Code 1365
The Programmable Logic Controllers (PLC) Technician trains you to work in career fields of automated industrial controls, with a focus on electrical controls and programmable logic controllers. Jobs in PLCs can be found in such career fields as Electrical and Electronics Installers and Repairers. This program is associated with the college's Integrated Systems Technology A.A.S degree. The IST career path prepares students for entry-level positions as electrical and mechanical technicians found in bakeries, manufacturing, chemical plants, and materials handling and automated warehouse environments.

Integrated Systems

Electronics and Integrated Systems Technology
### Required Career Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT-101</td>
<td>Electricity and Electronics</td>
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<tr>
<td>ELT-102</td>
<td>Digital Logic and Solid State Devices</td>
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<tr>
<td>ELT-112</td>
<td>Computers for Industry</td>
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<td>ELT-201</td>
<td>Industrial Controls</td>
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<td>ELT-202</td>
<td>Advanced Industrial Controls</td>
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<tr>
<td>ELT-211</td>
<td>Introduction to PLCs</td>
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<tr>
<td>ELT-222</td>
<td>Advanced PLCs</td>
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<tr>
<td>ELT-260</td>
<td>Internship (optional)</td>
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<tr>
<td>IMM-101</td>
<td>Mechanical Systems I</td>
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<td>IMM-103</td>
<td>Machinery Moving and Set-Up</td>
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<td>IMM-107</td>
<td>Mechanical Systems II</td>
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<td>IMM-110</td>
<td>Hydraulics</td>
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<td>IMM-115</td>
<td>Pneumatics</td>
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<td>IST-109</td>
<td>Prints for industry</td>
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<tr>
<td>LAN-102</td>
<td>Voice and Data Cabling</td>
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<td>LAN-112</td>
<td>Managing IT – A+</td>
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<tr>
<td>LAN-121</td>
<td>Networks Essentials – Network+</td>
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<td>MTH-133</td>
<td>Math for Industry</td>
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<tr>
<td>WLD-111</td>
<td>Basic Arc/Gas Welding I</td>
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<tr>
<td>WLD-112</td>
<td>Basic Arc/Gas Welding II</td>
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<tr>
<td>WLD-113</td>
<td>Basic Metallurgy and Materials</td>
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</tbody>
</table>
Success starts here!
Additional services and programs to help you move to the head of the class

Women in Technology
We help and inspire young women to explore and consider the possibility of a technical career. At Moraine Valley, we make you feel comfortable, take you through hands-on activities and events that motivate, and bring out your creativity.

Dual Credit for high school students
Check with your high school instructor about earning college credit for Electronics I and II, Computer Maintenance, and other classes taken in high school. These can be directly applied to many of our certificates/degrees.

Students—while you’re in high school, you also should consider these classes
• Mechanical Systems I and Hydraulics for high school students
• Electronics classes and math for industry
• Graphic arts, computer animation

Women in Technology
morainevalley.edu/ist
Internships—connecting with area businesses

Our internship program offers you short-term, supervised, real-world work experience. An internship can:

• train you with necessary skills employers are looking for when hiring
• provide a competitive edge that can set you apart from other candidates
• help you earn academic credit, depending on your major
• offer possible job opportunities
• make your resume stand out

In addition to gaining great experience to complete your classroom learning, internships allow you to build your resume, make valuable industry contacts, and be one step closer to getting the job you desire.

Choose Moraine Valley and save money

Why pay more for the same education? Tuition for Moraine Valley’s programs is considerably less than four-year universities or design schools and can save you thousands of dollars. Plus, financial aid and scholarships are available.

Distinguished Scholar Award

High school students who graduate in top 10 percent of their graduating class are offered an award that covers 100 percent of in-district tuition and fees.

Enroll in Moraine Valley’s Electronics, Mechanical, and Integrated Technology programs today!

Find out more about how we can assist you in your area of interest.

Contact

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