

## ELECTROMECHANICAL TECHNOLOGY–INSTRUMENTATION

### Program Description

The Electromechanical Technology-Instrumentation (ETI) program is designed to provide students with advanced industrial electromechanical skills with an emphasis in electrical motors, AC drives, DC controls, programmable logic controllers, instrumentation and precision maintenance. Graduates of the ETI program should possess the solid foundational knowledge and maintenance skills necessary to successfully compete for high-demand, high-wage jobs in advanced technological workplace settings. Examples of such maintenance jobs include electrical and instrumentation technicians, electrical and mechanical technicians, industrial mechanics, millwrights and other related jobs. However, work experience is necessary to become a master technician in this career field.

The course prerequisites for enrolling in the ETI program are satisfactory completion of all the courses required for the one-year Electromechanical Technology Technical Certificate. Additionally, all the credits earned in ETI program will apply toward an Associate of Applied Science (AAS) in Industrial Technology degree. Students ultimately desiring to pursue the AAS in Industrial Technology should make note of the general education course requirements when scheduling their classes each semester or term.

The length of the Electromechanical Technology-Instrumentation program for a full-time student is two (2) semesters and (1) summer term.

### Student Learning Outcomes

Successful completers of this program will be able to:

- Promote a safe working environment.
- Troubleshoot and wire electrical equipment.
- Perform mechanical adjustments and repairs.
- Calibrate instrument devices.
- Describe industrial process control loops.
- Wire and program programmable logic controllers (PLCs).

*NOTE: Students must have completed the Electromechanical Technology technical certificate to enroll in the following courses.*

### **GRADUATION REQUIREMENTS** (Suggested Schedule)

<b><u>Fall Semester</u></b>			<b><u>Credit Hours</u></b>
ELTE	20104	Industrial Electrical Motors/AC Drives	4
ELTE	21705	Industrial Automation/Robotics Concepts	5
ELTE	26102	DC Controls	2
ELTE	11202	Industrial Safety	2
<b><u>Spring Semester</u></b>			
ELTE	21505	Programmable Logic Controls	5
ELTE	21435	Instrumentation	5
ELTE	11102	Precision Maintenance	2
<b><u>Summer I Term</u></b>			
ELTE	21603	Advanced Instrumentation/Troubleshooting	3
<b>Exit: Electromechanical Technology-Instrumentation Advanced Technical Certificate</b>			<b>28</b>