

Industrial PLC Systems Certificate

Fall Semester			Credits
ELT	102	Industrial Electricity	4
MFT	103	Industrial Robots and PLCs	3
IDM	210	Hydraulics and Pneumatics	4
MAT	106	Technical Mathematics	<u>4</u>
			15
Spring Semester			Credits
MFT	201	PLC Manufacturing Systems	3
ELT	150	Applied Solid State Electronics	4
ELT	224	Power Distribution and Motors	3
IDM	120	Safety and Environmental Mgt.	2
PHY	121	Technical Physics	<u>3</u>
			15

Facilities

The industrial maintenance facilities rely on sophisticated computers, software, programmable logic controllers, electrical equipment, and hydraulic/pneumatic trainers. Students are encouraged to use problem-solving skills to solve industrial maintenance related problems.

2+2 with SIUC or SEMO

Students who have completed a two-year industrial maintenance or industrial maintenance engineering degree may wish to further their education by completing a B.S. degree in industrial technology through Southern Illinois University or Southeast Missouri State University. Major employers in manufacturing, industrial, and government settings are seeking four-year industrial technology graduates.

For more information, call one of the following toll-free numbers:

Carbondale.....	(618) 549-7335
Carterville.....	985-3741
Crab Orchard.....	1-800-851-4720
DeSoto.....	549-7335
Du Quoin.....	542-8612, 542-9210
Elkville.....	542-8612
Gorham.....	1-800-851-4720
Herrin.....	985-3741
Johnston City.....	985-3741
Marion.....	985-3741
Murphysboro.....	549-7335
Trico Area.....	1-800-851-4720
West Frankfort.....	937-3438, 932-6639
TTY (Hearing Impaired).....	(618) 985-2752

John A. Logan College website
<http://www.jalc.edu>



John A. Logan College
Carterville, Illinois 62918

John A. Logan College does not discriminate on the basis of race, religion, color, national origin, disability, age, or gender orientation.

Industrial Maintenance



John A. Logan College
 Carterville, Illinois

Career Opportunities

Although beginning salaries are comparable to other technical careers, experienced industrial maintenance technicians can earn \$22,000 to \$42,000 a year, with many positions offering an opportunity for advancement. These positions can be found in our region with manufacturing companies, industrial companies, hospitals, medical facilities, schools, motel chains, government agencies, and the mining industry.

Upon completion of the Industrial Maintenance Program, a student may find employment as an electrical or mechanical maintenance technician. The Industrial Maintenance Engineering Program provides the student an opportunity to start at a higher level in the work force. Opportunities for quick advancement within a company are possible with this degree. The PLC technician specializes in programming, setting up, and troubleshooting programmable logic controllers that are widely used by manufacturing companies to control and monitor processes.

A job placement service is provided for all John A. Logan College graduates in an effort to assist students in finding gainful employment. Each year new graduates prepare or update resumes and submit them to the College Placement Office for review by potential employers.



Industrial Maintenance Program

Students obtain skills within the areas of electricity and electrical controls, machine processes, welding, applied solid state electronics, hydraulics and pneumatics, heating and air conditioning, refrigeration, PLCs, industrial robots, and motors.

Industrial Maintenance

Curriculum - 2 Year Degree

FIRST YEAR - Fall Semester Credits

MAT	106	Technical Mathematics	4
ELT	102	Industrial Electricity	4
MAC	180	Blueprint Reading	3
MAC	150	Machine Tool Operations	2
MAC	200	Machine Tool Laboratory	<u>4</u>
			17

Spring Semester Credits

WEL	201	Industrial Welding	6
SPE	115	Speech	3
CIS	101	Introduction to Computers	3
ELT	150	Applied Solid State Electronics	4
IDM	120	Safety and Environmental Mgt.	<u>2</u>
			18

Summer Semester (Optional) Credits

ATI	200	Applied Technology Internship	1-3
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SECOND YEAR - Fall Semester Credits

IDM	210	Hydraulics and Pneumatics	4
HAC	121	Heating and Air Conditioning I	4
HAC	131	Refrigeration I	4
MFT	103	Industrial Robots and PLCs	<u>3</u>
			15

Spring Semester Credits

PHY	121	Technical Physics	3
ELT	224	Power Distribution and Motors	3
MFT	201	PLC Manufacturing Systems	3
ENG	113	Technical Writing	3
PSY	132	General Psychology	3
PSC	131	American Government*	<u>3</u>
			18

*May be substituted with HIS 201 or 202 - U.S. History I or II

Industrial Maintenance Engineering

Curriculum - 2 Year Degree

First Semester - Fall Credits

ELT	100	DC/AC Fundamentals	8
MAT	106	Technical Mathematics*	4-5
PSY	132	General Psychology**	2-3
MFT	103	Industrial Robots and PLCs	<u>3</u>
			17-19

Second Semester - Spring Credits

ELT	110	Solid State Circuit	8
ELT	111	Digital Electronics	6
PSY	153	Physics for Electronics***	<u>4-5</u>
			18-19

Summer Semester (Optional) Credits

ATI	200	Applied Technology Internship	1-3
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Second Year - Fall Semester Credits

IDM	210	Hydraulics and Pneumatics	4
SPE	115	Speech	3
CIS	207	Computer Applications for Business	3
ENG	101	English Composition I****	3
		Technical Elective	<u>3</u>
			16

Second Year - Spring Semester Credits

ELT	220	Industrial Electricity	8
ELT	224	Power Distribution and Motors	3
MFT	201	PLC Manufacturing Systems	3
MFT	110	Statistical Process Control	2
IDM	120	Safety and Environmental Mgt.	<u>2</u>
			18

Electives Credits

ELT	236	Introduction to Fiber Optics	3
ELT	200	Introduction to Microprocessors	5
ELT	150	Applied Solid State Electronics	3

*May be substituted with MAT 111 - Pre-Calculus

**May be substituted with PSY 128 - Human Relations

***May be substituted with PHY 155 - College Physics I

****May be substituted with ENG 113 - Professional Technical Writing