

Electronics Concentration Continued

Optional

ATI	200	Applied Technologies Internship	1-4
IDM	210	Hydraulics and Pneumatics	4

*May be substituted with MAT 107 - Technical Math with Applications

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

***May be substituted with ENG 101 - English Composition

****May be substituted with PSY 128 - Human Relations

Computer Information Systems

Concentration

First Year - Fall Semester

			Credits
MAT	106	Technical Mathematics*	4
MAC	180	Machine Trades Blueprint Reading	3
IND	121	Manufacturing Processes I	2
DRT	185	Computer Graphics I	2
CIS	101	Introduction to Computers	3
CIS	102	Programming I	3
			17

First Year - Spring Semester

			Credits
PSY	132	General Psychology**	2-3
PSC	131	American Government***	3
MFT	101	Production Technology	3
MAC	154	Introduction to CNC	2
CIS	104	Spreadsheet Design	3
CIS	120	Database Management	3
			16-17

Second Year - Fall Semester

			Credits
ENG	113	Professional Technical Writing****	3
ELT	102	Industrial Electricity	4
MAC	159	CAM Operations	2
MFT	103	Industrial Robots and PLCs	3
CIS	230	Operating Systems	3
CIS	103	Network Administration I	3
			18

Second Year - Spring Semester

			Credits
PHY	121	Technical Physics	3
MFT	201	PLC Manufacturing Systems	3
IND	122	CAD-CAM Operations	2
SPE	115	Speech	3
MFT	110	Statistical Process Control	2
CIS	220	Advanced Spreadsheet Design	3
CIS	225	Advanced Database Management	3
			19

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2+2 with SIUC

Students that have completed a two-year manufacturing technology degree may wish to further their education by completing a B.S. degree in industrial technology through Southern Illinois University. Major employers in manufacturing, industrial, and government settings are seeking four-year industrial technology graduates. Contact JALC Department Chair Keith Kendrick for details. A sample curriculum follows. For specific degree requirements, consult the current SIUC Undergraduate Catalog, which can be viewed on-line along with transferable course equivalencies and other information at <http://www.siu.edu/siuc/>.

Third Year		Fall	Spring
IT	375 Production and Inventory Control	3	-
IT	382 Motion and Time Study	3	-
MAT	125 Technical Math Applications	4	-
	Fine Arts Elective	3	-
	Senior Institution Credits	2	-
IT	305 Industrial Safety	-	3
IT	390 Cost Estimating	-	3
IT	392 Facilities Planning	-	3
IT	307 Calculus Applications	-	3
	Humanities Elective	-	3
		15	15
Fourth Year		Fall	Spring
IT	475 Quality Control	3	-
PHYS	203A Mechanics and Heating	3	-
PHYS	253A Lab	1	-
	Biological Science Elective	3	-
	Social Science Elective	3	-
	Senior Institution Credits	2	-
IT	240 First Line Supervision	-	3
IT	440 Manufacturing Policy	-	3
IT	485 Quality Control II	-	3
	Technical Elective	-	3
	Multicultural Elective	-	3
		15	15

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

Carbondale.....	(618) 549-7335
Cartersville.....	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.

Rev. 11-04-JALC

Manufacturing Technology Program



Concentrations:

- Machine Tool
- Computer-Aided Drafting
- Electronics
- Computer Information Systems



John A. Logan College

Career Opportunities

Experienced manufacturing technology technicians can earn \$24,000 to \$42,000 a year, with many positions offering an opportunity for quick advancement. These positions can be found in our region with employers primarily consisting of manufacturing and industrial companies. Upon successful completion of a manufacturing technology degree program, a student may find employment based on the specific concentration chosen: a machinist or CNC operator, CAD technician, electronics technician, or software support staff. 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. Students wishing to further their education by completing B.S. degrees may do so through several available universities.

Facilities

The JALC manufacturing technology facilities use state-of-the-art CNC machines, computers, software, measuring tools, and libraries. Students are encouraged to use problem-solving skills to solve manufacturing-related problems.

Machine Tool Concentration

First Year - Fall Semester			Credits
DRT	185	Computer Graphics I	2
MAT	106	Technical Mathematics*	4
MAC	150	Machine Tool Operations	2
MAC	151	Machine Tool Laboratory	2
MAC	152	Machine Tool Laboratory	2
MAC	153	Machine Tool Laboratory	2
MAC	180	Machine Trades Blueprint Reading	3
			17

First Year - Spring Semester			Credits
IND	122	CAD/CAM Operations	2
PSC	131	American Government**	3
MFT	101	Production Technology	3
MAC	154	Introduction to CNC	2
MAC	155	Machine Tool Laboratory	2
MAC	156	Machine Tool Laboratory	2
MAC	157	Machine Tool Laboratory	2
WEL	150	Oxy-Acetylene Fusion Welding	1
			17

Second Year - Fall Semester			Credits
IDM	210	Hydraulics & Pneumatics	3
ENG	113	Professional Technical Writing***	3
MFT	103	Industrial Robots and PLCs	3
MAC	158	Machine Tool Laboratory	2
MAC	159	CAM Operations	2
MAC	160	Machine Tool Laboratory	2
MAC	161	Machine Tool Laboratory	2
IND	201	Metallurgy	2
			19

Spring Semester			Credits
PHY	121	Technical Physics	3
PSY	132	General Psychology****	2-3
SPE	115	Speech	3
MFT	201	PLC Manufacturing Systems	3
MAC	162	Machine Tool Laboratory	2
MAC	163	Machine Tool Laboratory	2
MAC	164	Machine Tool Laboratory	2
			17-18

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ATI	200	Applied Technologies Internship	1-4
IDM	210	Hydraulics and Pneumatics	4

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Computer-Aided Drafting Concentration

First Year - Fall Semester			Credits
MAT	106	Technical Mathematics*	4
DRT	181	Technical Drafting I	4
ENG	113	Professional Technical Writing**	3
IND	121	Manufacturing Processes I	2
DRT	185	Computer Graphics I	2
PSY	132	General Psychology***	2-3
			17-18

First Year - Spring Semester			Credits
DRT	182	Technical Drafting II	4
DRT	190	Computer Graphics II	2
MFT	101	Production Technology	3
MAC	154	Introduction to CNC	2
SPE	115	Speech	3
PSC	131	American Government****	3
			17

Second Year - Fall Semester			Credits
ELT	102	Industrial Electricity	4
DRT	283	Advanced Technical Drawing II	3
MAC	159	CAM Operations	2
MFT	103	Industrial Robots and PLCs	3
DRT	183	Detail and Assembly	2
DRT	281	Computer Graphics III	3
			17

Second Year - Spring Semester			Credits
PHY	121	Technical Physics	3
IND	122	CAD-CAM Operations	2
DRT	186	Geometric Dimensioning and Tolerancing	2
DRT	282	Tool Design	3
DRT	286	Computer Graphics IV	3
MFT	110	Statistical Process Control	2
MFT	201	PLC Manufacturing Systems	3
			18

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Electronics Concentration

First Year - Fall Semester			Credits
MAT	106	Technical Mathematics*	4
MAC	180	Machine Trades Blueprint Reading	3
IND	121	Manufacturing Processes I	2
DRT	185	Computer Graphics I	2
MFT	103	Industrial Robots and PLCs	3
ELT	102	Industrial Electricity	4
			18

First Year - Spring Semester			Credits
IDM	120	Safety & Environmental Mgt.	2
MFT	101	Production Technology	3
ELT	150	Applied Solid State Electronics	4
MAC	154	Introduction to CNC	2
ELT	111	Digital Electronics	6
			17

Second Year - Fall Semester			Credits
PSY	132	General Psychology**	2-3
ENG	113	Professional Technical Writing***	3
ELT	224	Power Distribution and Motors	3
MAC	159	CAM Operations	2
ELT	236	Introduction to Fiber Optics	3
ELT	200	Introduction to Microprocessors	5
			18-19

Second Year - Spring Semester			Credits
PHY	121	Technical Physics	3
MFT	201	PLC Manufacturing Systems	3
IND	122	CAD-CAM Operations	2
SPE	115	Speech	3
MFT	110	Statistical Process Control	2
PSC	131	American Government****	3
			16