



**MANUFACTURING TECHNOLOGY**  
**Computer Information Systems Concentration**  
**Degree Program**

Career Curriculum 00CIM0091  
 Associate in Applied Science  
 Minimum Hrs. 70  
 Major Code: 1.2 150411C

**FIRST YEAR – FALL SEMESTER**

Dept. No.	Hrs.	Gr.	
CIS 101	Introduction to Computers	3	___
CIS 102	Programming I	3	___
DRT 185	Computer Graphics I	2	___
IND 121	Manufacturing Processes I	2	___
MAC 180	Blueprint Reading	3	___
MAT 113	Introduction to Contemporary Mathematics OR	3-4	___
	MAT 106 Technical Mathematics OR	16-17	___
	MAT 107 Technical Math with Applications OR		___
	MAT 120 Elementary Statistics		___

**FIRST YEAR – SPRING SEMESTER**

Dept. No.	Hrs.	Gr.	
CIS 104	Spreadsheet Design	3	___
CIS 120	Database Management	3	___
MAC 154	Introduction to CNC	2	___
MFT 101	Production Technology	3	___
PSC 131	American Government OR	3	___
	HIS 201 United States History I OR		___
	HIS 202 United States History II		___
PSY 132	General Psychology	3	___
		17	___

**SECOND YEAR – FALL SEMESTER**

Dept. No.	Hrs.	Gr.	
CIS 103	Network Administration	3	___
CIS 230	Operating Systems	3	___
ELT 102	Basic Electricity and Wiring	4	___
ENG 113	Professional Technical Writing <sup>1</sup> OR	3	___
	ENG 101 English Composition I <sup>1</sup>		___
MAC 159	CAM Operations	2	___
MFT 103	Industrial Robots and PLCs	3	___
		18	___

**SECOND YEAR – SPRING SEMESTER**

Dept. No.	Hrs.	Gr.	
CIS 220	Advanced Spreadsheet Design	3	___
CIS 225	Advanced Database Management	3	___
IND 122	CAD/CAM Operations	2	___
MFT 110	Statistical Process Control	2	___
MFT 201	PLC Manufacturing Systems	3	___
PHY 121	Technical Physics	3	___
SPE 115	Speech	3	___
		19	___

**OPTIONAL**

Dept. No.	Hrs.	Gr.	
ATI 200	Applied Technologies Internship	1-3	___
IDM 210	Hydraulics and Pneumatics	4	___

<sup>1</sup> Requires a grade of "C" or higher.

The minimum general education component for the Associate in Applied Science degree requires satisfactory completion of at least 15 semester credits of coursework distributed over the disciplines of Communications, Mathematics, Arts and Humanities, Physical and Life Sciences, and Social and Behavioral Sciences. The curriculum guide for each Associate in Applied Science degree program will spell out the course requirements or options available for satisfying the general education component. With appropriate justification and in consultation with your academic advisor, a request to substitute a course for one recommended in this guide may be granted with the appropriate approvals from the Department Chair, Dean for Instruction and Vice-President for Instruction. However, no substitutions are allowed in Groups I-III (General Education Component; GECC) of the curriculum guide (see the Associate in Applied Science general degree requirements worksheet in the John A. Logan College Catalog).

Students planning to transfer and pursue a baccalaureate degree should, when given a choice, enroll in the general education course that is IAI GECC approved and articulated with participating Illinois institutions.

*John A. Logan College reserves the right to modify this curriculum guide as needed.  
 Please verify with your academic advisor the accuracy and time lines of this document.*

**Effective Date: Fall 2010**

**Additional Information:** Manufacturing Technology is the study of all of the technologies used to operate a manufacturing business and to increase overall efficiency and productivity in manufacturing. The concern is for how the product is manufactured, distributed, documented, and supported. The following are included in the study of Manufacturing Technology: industrial robots, CAD, CAM, CAD-CAM, PLCs, materials handling, storage and retrieval, payroll, invoicing, receiving, bid specs, production scheduling, record keeping, order entry, and inventory control.

Both two-year associate degree and certificate programs are offered. The degree programs are designed to prepare men and women for a variety of positions in manufacturing. The student will be exposed to the total manufacturing environment, including computer-aided design (CAD), computer-aided manufacturing (CAM), and manufacturing resource planning (MRP). Students will be exposed to a broad knowledge of the basic aspects of manufacturing including these: CAD/CAM, industrial electricity, industrial robots, PLCs, material handling systems, storage and retrieval systems, quality control, production control, manufacturing control, and computer machine tool set-up and operation. Students will design and manufacture a product on an integrated CIM cell.

**Career Opportunities:** The graduate of this program will be qualified (depending on his or her concentration) for an entry level position as a CAD operator or draftsman, robot programmer, shop floor manager, computer-aided machine tool operator, CAD/CAM operator, electronics technician, or CNC operator/programmer.