



MANUFACTURING TECHNOLOGY
Computer-Aided Drafting Concentration
Degree Program

Career Curriculum 00CIM0091
 Associate in Applied Science
 Minimum Hrs. 69
 Major Code: 1.2 150411C

FIRST YEAR – FALL SEMESTER

| Dept. No. | Hrs. | Gr. |
|-----------|--------------|-----|
| DRT 181 | 4 | — |
| DRT 185 | 2 | — |
| ENG 113 | 3 | — |
| IND 121 | 2 | — |
| MAT 113 | 3-4 | — |
| MAT 106 | | — |
| MAT 107 | | — |
| MAT 120 | | — |
| PSY 132 | 3 | — |
| | <u>17-18</u> | |

FIRST YEAR – SPRING SEMESTER

| Dept. No. | Hrs. | Gr. |
|-----------|-----------|-----|
| DRT 182 | 4 | — |
| DRT 190 | 2 | — |
| MAC 154 | 2 | — |
| MFT 101 | 3 | — |
| PSC 131 | 3 | — |
| HIS 201 | | — |
| HIS 202 | | — |
| SPE 115 | 3 | — |
| | <u>17</u> | |

SECOND YEAR – FALL SEMESTER

| Dept. No. | Hrs. | Gr. |
|-----------|-----------|-----|
| DRT 183 | 2 | — |
| DRT 281 | 3 | — |
| DRT 283 | 3 | — |
| ELT 102 | 4 | — |
| MAC 159 | 2 | — |
| MFT 103 | 3 | — |
| | <u>17</u> | |

SECOND YEAR – SPRING SEMESTER

| Dept. No. | Hrs. | Gr. |
|-----------|-----------|-----|
| DRT 186 | 2 | — |
| DRT 282 | 3 | — |
| DRT 286 | 3 | — |
| IND 122 | 2 | — |
| MFT 110 | 2 | — |
| MFT 201 | 3 | — |
| PHY 121 | 3 | — |
| | <u>18</u> | |

OPTIONAL

| Dept. No. | Hrs. | Gr. |
|-----------|------|-----|
| ATI 200 | 1-3 | — |
| IDM 210 | 4 | — |

¹ 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.