

# INDUSTRIAL ENGINEERING TECHNOLOGY A40240

The Industrial Engineering Technology curriculum prepares graduates to perform as technical leaders in manufacturing and service organizations. The curriculum incorporates the study and application of methods and techniques for developing, implementing and improving integrated systems involving people, material, equipment and information.

The course work emphasizes analytical and problem-solving techniques for process development and improvement. The curriculum includes systems analysis, quality and productivity improvement techniques, cost analysis, facilities planning, organizational management, effective communications, and computer usage as a problem-solving tool.

Graduates of the curriculum will qualify for positions in a wide range of manufacturing and service organizations. Employment opportunities include industrial engineering technology, quality assurance, supervision, team leadership, and facilities management. Certification is available through organizations such as ASQC, SME, and APICS.

## Industrial Engineering Technology Associate in Applied Science Degree A40240 (Revised 2002\*03) Course and Hour Requirements

Title	Hours Class	Lab	Work Exp.	Credits
<b>I. General Education Courses: 15 Hours</b>				
A. English: 6 Hours				
ENG 111 Expository Writing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3
B. Social/Behavioral Sciences: 3 Hours				
ECO 251 Prin of Microeconomics	3	0	0	3
C. Humanities/Fine Arts: 3 Hours				
Selected from the list of humanities/fine arts electives for the Associate in Applied Science degree appearing in the current catalog.				
D. Math/Natural Sciences: 3 Hours				
MAT 121 Algebra/Trigonometry I	2	2	0	3
<b>II. Major Courses: 53 Hours</b>				
A. Core: 19 Hours				
DFT 111 Technical Drafting I	1	3	0	2
ISC 112 Industrial Safety	2	0	0	2
ISC 132 Mfg Quality Control	2	3	0	3
ISC 135 Principles of Industrial Mgmt	3	0	0	3
ISC 136 Productivity Analysis I	2	3	0	3
ISC 243 Prod and Oper Management I	2	3	0	3
MEC 111 Machine Processes I	2	3	0	3

## Industrial Engineering Technology A40240 (Continued)

Title	Hours Class	Lab	Work Exp.	Credits
<b>B. Other Major Courses: 34 Hours</b>				
1. Required Courses: 31 Hours				
BUS 135 Principles of Supervision	3	0	0	3
DFT 151 CAD I	2	3	0	3
ISC 131 Quality Management	3	0	0	3
ISC 153 Motion & Time Study	2	3	0	3
ISC 221 Statistical Qual Control	3	0	0	3
ISC 226 Facilities Design	3	2	0	4
ISC 236 Productivity Analysis II	2	3	0	3
MAT 122 Algebra/Trigonometry II	2	2	0	3
MEC 181 Introduction to CIM	2	0	0	2
PHY131 Physics/Mechanics	3	2	0	4
2. 3 Hours from the following				
CIS 110 Introduction to Computers	2	2	0	3
or				
CIS 111 Basic PC Literacy	1	2	0	2
CIS 120 Spreadsheet I	2	2	0	3
CIS 152 Database Concepts & Apps	2	2	0	3
COE 111-112 Co-op Work Experience I	0	0	10-20	1-2
COE 121-122 Co-op Work Experience II	0	0	10-20	1-2
ISC 222 Project Management	1	2	0	2
ISC 256 System Design	2	3	0	3
ISC 273 Design of Experiments I	2	0	0	2
MEC 110 Intro to CAD/CAM	1	2	0	2
MEC 145 Mfg Materials I	2	3	0	3
<b>III. Other Required Courses: 1 Hour</b>				
ACA 111 College Student Success	1	0	0	1
or				
ACA 115 Success & Study Skills	0	2	0	1
<b>Total Credits</b>				<b>69</b>



# Industrial Engineering Technology

## Diploma D40240D

### (Revised 2002\*03) Course and Hour Requirements

Title	Hours Class	Lab	Work Exp.	Credits
<b>I. General Education Courses: 6 Hours</b>				
A. English: 3 Hours				
ENG 111 Expository Writing	3	0	0	3
B. Math/Natural Sciences: 3 Hours				
MAT 121 Algebra/Trigonometry I	2	2	0	3
<b>II. Major Courses: 34 Hours</b>				
A. Core: 19 Hours				
DFT 111 Technical Drafting I	1	3	0	2
ISC 112 Industrial Safety	2	0	0	2
ISC 132 Manufacturing Quality Control	2	3	0	3
ISC 135 Principles of Industrial Mgmt	3	0	0	3
ISC 136 Productivity Analysis I	2	3	0	3
ISC 243 Prod & Oper Management I	2	3	0	3
MEC 111 Machine Processes I	2	3	0	3
B. Other Major Courses: 15 Hours				
1. Required Courses: 12 Hours				
ISC 131 Quality Management	3	0	0	3
ISC 153 Motion & Time Study	2	3	0	3
ISC 221 Statistical Quality Control	3	0	0	3
ISC 236 Productivity Analysis II	2	3	0	3
2. 3 Hours from the following:				
BUS 135 Principles of Supervision	3	0	0	3
COE 111-112 Co-op Work Experience I	0	0	10-20	1-2
COE 121-122 Co-op Work Experience II	0	0	10-20	1-2
DFT 151 CAD I	2	3	0	3
ISC 222 Project Management	1	2	0	2
ISC 226 Facilities Design	3	2	0	4
ISC 256 System Design	2	3	0	3
ISC 273 Design of Experiments I	2	0	0	2
MEC 110 Intro to CAD/CAM	1	2	0	2
MEC 181 Introduction to CIM	2	0	0	2
<b>III. Other Required Courses: 1 Hour</b>				
ACA 111 College Student Success	1	0	0	1
or				
ACA 115 Success & Study Skills	0	2	0	1
<b>Total Credits</b>				<b>41</b>

**Industrial Engineering Technology**  
**Quality Certificate C40240C2**  
**(Revised 2002\*03) Course and Hour Requirements**

Title	Hours Class	Lab	Work Exp.	Credits
<b>I. General Education Courses: 0 Hours</b>				
<i>Students are required to demonstrate competency in ENG 080, RED 080, and MAT 070 prior to receiving a certificate.</i>				
<b>II. Major Courses: 15 Hours</b>				
ISC 131 Quality Management	3	0	0	3
ISC 132 Mfg Quality Control	2	3	0	3
ISC 135 Principles of Industrial Mgmt	3	0	0	3
ISC 136 Productivity Analysis I	2	3	0	3
ISC 221 Statistical Qual Control	3	0	0	3
<b>Total Credits</b>				<b>15</b>

**Industrial Engineering Technology**  
**Process Improvement Certificate C40240C3**  
**(Revised 2002\*03) Course and Hour Requirements**

Title	Hours Class	Lab	Work Exp.	Credits
<b>I. General Education Courses: 0 Hours</b>				
<i>Students are required to demonstrate competency in ENG 080, RED 080, and MAT 070 prior to receiving a certificate.</i>				
<b>II. Major Courses: 17 Hours</b>				
ISC 131 Quality Management	3	0	0	3
ISC 135 Principles of Industrial Mgmt	3	0	0	3
ISC 136 Productivity Analysis I	2	3	0	3
ISC 153 Motion & Time Study	2	3	0	3
ISC 236 Productivity Analysis II	2	3	0	3
MEC 181 Introduction to CIM	2	0	0	2
<b>Total Credits</b>				<b>17</b>

**Industrial Engineering Technology**  
**Supervision Certificate C40240C4**  
**(Revised 2002\*03) Course and Hour Requirements**

Title	Hours Class	Lab	Work Exp.	Credits
<b>I. General Education Courses: 0 Hours</b>				
<i>Students are required to demonstrate competency in ENG 080, RED 080, and MAT 070 prior to receiving a certificate.</i>				
<b>II. Major Courses: 15 Hours</b>				
BUS 135 Principles of Supervision	3	0	0	3
ISC 131 Quality Management	3	0	0	3
ISC 135 Principles of Industrial Mgmt	3	0	0	3
ISC 136 Productivity Analysis I	2	3	0	3
ISC 243 Prod and Oper Management I	2	3	0	3
<b>Total Credits</b>				<b>15</b>