

## APPLIED ENGINEERING TECHNOLOGY DEGREE (A40130)

The Applied Engineering Technology curriculum prepares individuals to use basic engineering principles and technical skills to solve technical problems in various types of industry. Course work emphasizes analytical and problem-solving skills. The curriculum includes courses in safety, math, physics, electricity, engineering technology, and technology-specific specialty areas.

Graduates should qualify for employment in a wide range of positions in research and development, manufacturing, sales, design, inspection, or maintenance. Employment opportunities exist in automation, computer, electrical, industrial, or mechanical engineering fields, where graduates will function as engineering technicians.

### COURSE & HOUR REQUIREMENTS

Course Number & Name	Class Hours	Lab Hours	Credit Hours
<b>FALL SEMESTER</b>			
ACA 111 College Student Success	1	0	1
CIS 110 Introduction to Computers	2	2	3
DFT 119 Basic CAD	1	2	2
ELC 111 Intro to Electricity	2	2	3
ELC 125 Diagrams and Schematics	1	2	2
ISC 112 Industrial Safety	2	0	2
<b>Total</b>	<b>9</b>	<b>8</b>	<b>13</b>
<b>SPRING SEMESTER</b>			
ELC 117 Motors and Controls	2	6	4
ELC 131 Circuit Analysis I	3	3	4
*ENG 111 Writing and Inquiry	3	0	3
*MAT 121 Algebra/Trigonometry I	2	2	3
<b>Total</b>	<b>10</b>	<b>11</b>	<b>14</b>
<b>SUMMER SEMESTER</b>			
ATR 112 Intro to Automation	2	3	3
ELC 128 Intro to PLC	2	3	3
*HUM 115 Critical Thinking	3	0	3
*PSY 150 General Psychology	3	0	3
<b>Total</b>	<b>10</b>	<b>6</b>	<b>12</b>
<b>FALL SEMESTER</b>			
ELC 213 Instrumentation	3	2	4
ELC 228 PLC Applications	2	6	4
HYD 110 Hyd./Pneumatics I	2	3	3
** Major Elective	-	-	2/3
<b>Total</b>	<b>7</b>	<b>11</b>	<b>13/14</b>
<b>SPRING SEMESTER</b>			
DFT 154 Intro to Solid Modeling	2	3	3
ELC 229 Applications Project	1	3	2
*ENG 112 Writing/Research in the Disciplines OR ENG 114 Professional Research & Reporting	3	0	3
MEC 130 Mechanisms	2	2	3
**Major Elective	-	-	2/3
<b>Total</b>	<b>8</b>	<b>8</b>	<b>13/14</b>
<b>TOTAL SEMESTER CREDIT HOURS FOR DEGREE</b>			<b>65/67</b>
<b>** MAJOR ELECTIVES Choose four to eight (4-8) hours from the following:</b>			
ATR 219 Automation Troubleshooting	1	3	2
DFT 152 CAD II	2	3	3
ISC 132 Manufacturing Quality Control	2	3	3
ISC 220 Lean Manufacturing	2	2	3
MAC 118 Machine Shop Basic	1	3	2
MAC 121 Intro to CNC	2	0	2
MAC 131 Blueprint Reading /Mach I	1	2	2
TDP 110 Introduction to 3D Printing	2	3	3
WLD 110 Cutting Processes	1	3	2

\*This course is a component of the general education requirements needed for graduation.

**NOTE:** Students are required to take ACA 111 in their first semester.

### APPLIED ENGINEERING TECHNOLOGY CERTIFICATE (C40130)

This certificate prepares individuals to work as entry level maintenance technicians.

#### COURSE & HOUR REQUIREMENTS

Class Title	Class Hours	Lab Hours	Credit Hours
ELC 117 Motors and Controls	2	6	4
ELC 128 Intro to PLC	2	3	3
HYD 110 Hyd./Pneumatics I	2	3	3
ISC 112 Industrial Safety	2	0	2
<b>TOTAL SEMESTER CREDIT HOURS FOR CERTIFICATE</b>	<b>8</b>	<b>12</b>	<b>12</b>

### APPLIED ENGINEERING TECHNOLOGY DRAFTING CERTIFICATE (C40130A)

This certificate prepares individuals to work as entry level maintenance technicians.

#### COURSE & HOUR REQUIREMENTS

Class Title	Class Hours	Lab Hours	Credit Hours
DFT 119 Basic CAD	1	2	2
DFT 152 CAD II	2	3	3
DFT 154 Into to Solid Modeling	2	3	3
MAC 131 Blueprint Reading /Mach I	1	2	2
TDP 110 Introduction to 3D Printing	2	3	3
<b>TOTAL SEMESTER CREDIT HOURS FOR CERTIFICATE</b>	<b>8</b>	<b>13</b>	<b>13</b>