

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
FALL SEMESTER			
ACA 111 College Student Success OR ACA 122 Transfer & Career Success	0/1	0/2	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
Total	8/9	8/10	13
SPRING SEMESTER			
ELC 117 Motors and Controls	2	6	4
ELC 131 Circuit Analysis I	3	3	4
*ENG 111 Writing and Inquiry	3	0	3
**Math	2/3	2	3/4
Total	10/11	11	14/15
SUMMER SEMESTER			
ATR 112 Intro to Automation	2	3	3
ELC 128 Intro to PLC	2	3	3
**Humanities/Fine Arts Elective	3	0	3
**Social/Behavioral Science Elective	3	0	3
Total	10	6	12
FALL SEMESTER			
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
Total	7	11	13/14
SPRING SEMESTER			
DFT 154 Intro to Solid Modeling	2	3	3
ELC 229 Applications Project	1	3	2
**English/Communication Elective	3	0	3
MEC 130 Mechanisms	2	2	3
***Major Elective	-	-	2/3
Total	8	8	13/14
TOTAL SEMESTER CREDIT HOURS FOR DEGREE			65/68

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

APPLIED ENGINEERING TECHNOLOGY DEGREE REQUIREMENTS

Course Number & Name	Class Hours	Lab Hours	Credit Hours
**MATH ELECTIVE Select <i>one</i> course from the following:			
MAT 121 Algebra/Trigonometry I	2	2	3
MAT 171 Precalculus Algebra	3	2	4
**ENGLISH/COMMUNICATION ELECTIVE Select <i>one</i> course from the following:			
COM 110 Introduction to Communication	3	0	3
COM 120 Intro to Interpersonal Communication	3	0	3
COM 231 Public Speaking	3	0	3
ENG 112 Writing/Research in the Disciplines	3	0	3

Course Number & Name	Class Hours	Lab Hours	Credit Hours
ENG 114 Professional Research & Reporting	3	0	3
**SOCIAL/BEHAVIORAL SCIENCE ELECTIVE Select <i>one</i> course from the following:			
ECO 251 Principles of Microeconomics	3	0	3
ECO 252 Principles of Macroeconomics	3	0	3
HIS 111 World Civilizations I	3	0	3
HIS 112 World Civilizations II	3	0	3
HIS 121 Western Civilization I	3	0	3
HIS 122 Western Civilization II	3	0	3
HIS 131 American History I	3	0	3
HIS 132 American History II	3	0	3
HIS 221 African American History	3	0	3
POL 120 American Government	3	0	3
PSY 150 General Psychology	3	0	3
SOC 210 Introduction to Sociology	3	0	3
SOC 213 Sociology of the Family	3	0	3
SOC 225 Social Diversity	3	0	3
**HUMANITIES/FINE ARTS Select <i>one</i> course from the following:			
ART 111 Art Appreciation	3	0	3
ART 113 Art Methods and Materials	0	6	3
ENG 131 Introduction to Literature	3	0	3
ENG 231 American Literature I	3	0	3
ENG 232 American Literature II	3	0	3
ENG 241 British Literature I	3	0	3
ENG 242 British Literature II	3	0	3
HUM 115 Critical Thinking	3	0	3
MUS 110 Music Appreciation	3	0	3
MUS 111 Fundamentals of Music	3	0	3
MUS 112 Introduction to Jazz	3	0	3
PHI 210 History of Philosophy	3	0	3
PHI 215 Philosophical Issues	3	0	3
PHI 240 Introduction to Ethics	3	0	3
REL 110 World Religions	3	0	3
***MAJOR ELECTIVE Select <i>4-8 SHC</i> from the following:			
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

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
TOTAL SEMESTER CREDIT HOURS FOR CERTIFICATE	8	12	12

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
TOTAL SEMESTER CREDIT HOURS FOR CERTIFICATE	8	13	13