APPLIED TECHNOLOGY, CERTIFICATE

This certificate program will allow students an opportunity to pursue multiple apprenticeship opportunities. Students will gain exposure to multiple career paths in multiple industries. Students will complete program requirements and then select 6 courses from the emphasis tracks. Students may work with a faculty member to develop a custom emphasis track.

Degree Requirements

Field of Study Code: APTEC.CER.APTEC

Code	Title	Credits
Program Requirements		
APTEC 1001	Survey of Technical Education	1
BUSIN 1111	Customer Service	3
ENGLI 1101	English Composition I	3
HVACR 1105	Introduction to Safety, Materials and Equipment	2-3
or MANUF 2280	Industrial Safety	
OFTI 1200	Microsoft 365 for Business Professionals	3
Elective Credits		**3**
Select 3 Credits from any Technical Education Discipline		
Emphasis Courses		**18**
Electro-Mechanical/Mechatronics Track		
ELECT 1100	Electricity and Electronics Fundamentals	
ELMEC 1110	Motor & Generator Fundamentals	
ELMEC 1141	Hydraulics and Pneumatics	
ELMEC 1190	Intro to Programmable Logic Controllers	
ELMEC 2410	Programmable Controller II (PLC II)	
ELMEC 2510	Process and Automation Controls	
Industrial Maintenance Track		
ELMEC 1190	Intro to Programmable Logic Controllers	
HVACR 1110	Introduction to Electricity and HVACR Controls	
HVACR 2110	Facility Electrical Systems	
HVACR 2242	Mechanical Systems	
MANUF 1151	Machine Shop I	
WELD 1100	Welding I	
Manufacturing Machining Track		
MANUF 1101	Industrial Design/CAD	
MANUF 1110	Metrology	
MANUF 1121	Physical Metallurgy	
MANUF 1151	Machine Shop I	
MANUF 1153	Advanced Machine Processes	
MANUF 2202	Solid Modeling and Design	
Manufacturing CNC Track		
MANUF 1101	Industrial Design/CAD	
MANUF 1110	Metrology	
MANUF 1151	Machine Shop I	
MANUF 2202	Solid Modeling and Design	
MANUF 2251	Computer Numerical Control (CNC)	
MANUF 2252	CNC Operations	
MANUF 2253	Computer-Aided Manufacturing (CAM)	
HVACR Service Track		
HVACR 1100	Refrigeration Principles	
HVACR 1105	Introduction to Safety, Materials and Equipment	
HVACR 1108	Refrigerant Certification	
HVACR 1110	Introduction to Electricity and HVACR Controls	
HVACR 1181	Heating Principles	
HVACR 2180	Residential and Light Commercial Forced-Air Heating	
HVACR 2202	Commercial Air Conditioning	
Facility Maintenance Track		
HVACR 1100	Refrigeration Principles	
HVACR 1105	Introduction to Safety, Materials and Equipment	
HVACR 1108	Refrigerant Certification	
HVACR 1110	Introduction to Electricity and HVACR Controls	
HVACR 1181	Heating Principles	
HVACR 2180	Residential and Light Commercial Forced-Air Heating	
HVACR 2202	Commercial Air Conditioning	
Welding Technology Track		
MANUF 1121	Physical Metallurgy	
WELD 1100	Welding I	
WELD 1112	Oxy-Fuel, Welding, Plasma Cutting and Brazing	
WELD 1122	Shielded Arc Welding (SMAW)	
WELD 1132	Gas Metal Arc Welding (GMAW) Carbon Steel Welding	
WELD 1142	Gas Tungsten Arc Welding (GTAW)	
Total Credits		**33-34**