

INT 101	DC Fundamentals	3
INT 103	AC Fundamentals	3
INT 113	Motor Controls	3
INT 117	Industrial Mechanics	3
INT 253	Industrial Robotics.....	3
INT 184	Intro to Programmable Logic Controllers	3
INT 284	Advanced Programmable Logic Controllers.....	3
INT 288	Applied Programmable Logic Controllers	3
Additional certificate requirements		3
ORI 101	Orientation to College	1
WKO 101	Workplace Skills Development	2
Total		60

Short Certificate - Applied Technology: Industrial Maintenance option

This program prepares individuals to apply technical knowledge and skills to repair and maintain industrial machinery and equipment such as cranes, pumps, engines and motors, pneumatic tools, conveyor systems, production machinery, marine deck machinery, and steam propulsion, refinery, and pipeline-distribution systems.

		credit hours
Required courses.....		27
INT 101	DC Fundamentals	3
INT 103	AC Fundamentals.....	3
INT 113	Motor Controls	3
INT 117	Industrial Mechanics	3
INT 253	Industrial Robotics.....	3
INT 184	Intro to Programmable Logic Controllers.....	3
INT 284	Advanced Programmable Logic Controllers	3
INT 288	Applied Programmable Logic Controllers	3
INT 134	Prin. of Industrial Maintenance Welding and Metal Cutting Techniques	3
Total		27

Certificate - Applied Technology: Sustainable Construction/Renewable Energy Option

This program emphasizes the tools and materials used in the construction industry. Topics include safety, hand tools, hand held power tools, building codes, construction measurements, and construction materials. This course also integrates renewable energy topics such as solar /thermal principals, sustainable building materials, and photovoltaic principals and design. Upon completion, students should be able to work safely within the industry and operate various hand tools and power equipment. Students will also understand how sustainable construction affects the environment and future economy.

		credit hours
Required general education courses		12
ENG 101	English Composition I	3
MTH 100	Intermediate College Algebra or higher level MTH.....	3
SPH 106	Fundamentals of Oral Communication	3
or SPH 107	Fundamentals of Public Speaking	3
CIS 146	Microcomputer Applications	3

Required Sustainable Construction/Renewable Energy courses	43
ADM 100 Industrial Safety	3
ADM101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Intro to Computer Integrated Manufacturing/Material Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
REN 105 Renewable Technology Awareness	1
REN 115 Photovoltaic Principles and Design	3
REN 205 Solar Thermal Principles	3
REN 215 Photovoltaic Systems and Servicing Procedures	3
BUC 112 Construction Measurements and Calculations	3
BUC 133 Standard Building Codes	3
BUC 210 Current Topics in Building Construction	3
BUC 111 Basic Construction Layout	3
Additional certificate requirements.	3
*ORI 101 Orientation to College	1
WKO 101 Workplace Skills Development	2
Total	58

Short Certificate- Applied Technology: Sustainable Construction/Renewable Energy option

This program emphasizes the tools and materials used in the construction industry. Topics include safety, hand tools, hand held power tools, building codes, construction measurements, and construction materials. This course also integrates renewable energy topics such as solar / thermal principals, sustainable building materials, and photovoltaic principals and design. Upon completion, students should be able to work safely within the industry and operate various hand tools and power equipment. Students will also understand how sustainable construction affects the environment and future economy.

	credit hours
Required courses	22
REN 105 Renewable Technology Awareness	1
REN 115 Photovoltaic Principles and Design	3
REN 205 Solar Thermal Principles	3
REN 215 Photovoltaic Systems and Servicing Procedures	3
BUC 112 Construction Measurements and Calculations	3
BUC 133 Standard Building Codes	3
BUC 210 Current Topics in Building Construction	3
BUC 111 Basic Construction Layout	3
Total	22

* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.