

INT 253	Industrial Robotics	3
INT 134	Prin. of Industrial Maintenance Welding and Metal Cutting Techniques	3
<b>Additional certificate requirements</b>		<b>3</b>
*ORI 101	Orientation to College	1
WKO 101	Workplace Skills Development	2
<b>Total</b>		<b>60</b>

## Short Certificate - Applied Technology: Automotive Manufacturing option

This program prepares individuals to apply basic engineering principles and technical skills to the identification and resolution of production problems in the manufacture of products. This program includes instruction in machine operations, production line operations, engineering analysis, systems analysis, instrumentation, physical controls, automation, computer-aided manufacturing (CAM), manufacturing planning, quality control, and informational infrastructure.

	<b>credit hours</b>	
<b>Required courses</b>	<b>24</b>	
INT 101	DC Fundamentals	3
INT 103	AC Fundamentals	3
INT 117	Industrial Mechanics	3
INT 184	Intro to Programmable Logic Controllers	3
INT 284	Advanced Programmable Logic Controllers	3
INT 288	Applied Programmable Logic Controllers	3
INT 253	Industrial Robotics	3
INT 134	Prin. of Industrial Maintenance Welding and Metal Cutting Techniques	3
<b>Total</b>		<b>24</b>

## 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.

	<b>credit hours</b>	
<b>Required general education courses</b>	<b>12</b>	
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
<b>Required Industrial Maintenance courses</b>	<b>45</b>	
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