

## *Career Studies Certificates: Industrial Design; Industrial Maintenance Technician Basic*

**AREA:** Industrial Design 221-883-19

**LENGTH:** This certificate can be completed in two semesters if the following conditions are met:

- Students are willing to enroll in day and evening classes
- Students must take classes in the semesters they are listed

**PURPOSE:** To introduce students to the principles of sound industrial design, including related mathematics and concepts

**OCCUPATIONAL OBJECTIVES:** equipment designer, product development, engineering technician, product engineer, assembler, and other related positions

Course#	Title	Credits
EGR 135	Statics for Engineering Technology <sup>1</sup>	3
EGR 136	Strength of Materials for Engineering Technology <sup>2</sup>	3
MEC 111	Materials for Industry	3
ARC 130	Materials and Methods of Construction	3
MTH 115	Technical Mathematics I	3
MTH 116	Technical Mathematics II	3
	<b>Total</b>	<b>18</b>

<sup>1</sup>Prerequisite for EGR 135 is MTH 115.

<sup>2</sup>Prerequisite for EGR 136 is EGR 135.

**AREA:** Industrial Maintenance Technician Basic  
221-990-00

**LENGTH:** This certificate can be completed in two semesters if the following conditions are met:

- Students are willing to enroll in day and evening classes
- Students must take classes in the semesters they are listed

**PURPOSE:** To expose students to theory and application related to the maintenance of heating, air conditioning, electrical systems and motors and welding

**OCCUPATIONAL OBJECTIVES:** To prepare students for entry-level positions in industrial maintenance

Course#	Title	Credits
<b>Fall Semester</b>		
ELE 133	Practical Electricity I	3
SDV 101/100	Orientation to the Trades Profession	1
	Approved Technical Elective	3-4
	<b>Total</b>	<b>7-8</b>
<b>Spring Semester</b>		
ELE 134	Practical Electricity II	3
	Approved Technical Elective	3-4
Internship	Internship <u>or</u> Approved Technical Elective	3-4
	<b>Total</b>	<b>9-11</b>
	<b>Program Total</b>	<b>16-19</b>

Approved technical electives: any AIR, ELE, IND, MEC or WEL