INDUSTRIAL MANUFACTURING TECHNOLOGY (15.0613)

DIVISION: Technical Studies
DEPARTMENT: Manufacturing

DIPLOMA
TD – INDUSTRIAL MANUFACTURING TECHNOLOGY

EXIT POINTS
CTC – MANUFACTURING FUNDAMENTALS
CTS – INDUSTRIAL MANUFACTURING
CTS – INDUSTRIAL ELECTRONICS TECHNICIAN
CTS – MILLWRIGHT APPRENTICE
CTS – BASIC MACHINE TOOL TECHNOLOGY

TD CONCENTRATIONS:
ELECTRICAL & INSTRUMENTATION (E&I)
MACHINIST TECHNOLOGY
MILLWRIGHT

SPECIAL COMMENTS: This diploma consists of a core set of courses and 3 concentration areas from which the student can choose to complete the diploma credential.

Optional prep course is CPTR 1002 (Computer Literacy & Applications)

CURRICULUM

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Lecture</th>
<th>Lab</th>
<th>Total Credit Hrs.</th>
<th>Total Clock Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORNT 1000</td>
<td>Orientation</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>IMFG 1100</td>
<td>Introduction to Manufacturing</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>IMFG 1120</td>
<td>Tools and Equipment Used in Manufacturing</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td>IMFG 1200</td>
<td>Automation</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>45</td>
</tr>
<tr>
<td>IMFG 1300</td>
<td>Introduction to Fabrication, Process Technology, &amp; Machining</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>90</td>
</tr>
</tbody>
</table>

CTC – MANUFACTURING FUNDAMENTALS

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Lecture</th>
<th>Lab</th>
<th>Total Credit Hrs.</th>
<th>Total Clock Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMFG 1215</td>
<td>Basic AC/DC Electrical</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>105</td>
</tr>
<tr>
<td>IMFG 1121</td>
<td>Basic Mechanical</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>105</td>
</tr>
</tbody>
</table>

INDUSTRIAL ELECTRICAL & INSTRUMENTATION CONCENTRATION: (Core + the following)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Lecture</th>
<th>Lab</th>
<th>Total Credit Hrs.</th>
<th>Total Clock Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMFG 1433</td>
<td>Wiring/Electrical Blueprint Interpretation</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td>IMFG 1150</td>
<td>Fluid Power I</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>90</td>
</tr>
<tr>
<td>IMFG 1235</td>
<td>Motor Controls</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>105</td>
</tr>
<tr>
<td>IMFG 2123</td>
<td>Understanding Programmable Controllers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>105</td>
</tr>
<tr>
<td>IMFG 2100</td>
<td>Basic Process Control</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>105</td>
</tr>
<tr>
<td>CTS – INDUSTRIAL ELECTRONICS TECHNICIAN</td>
<td></td>
<td>30</td>
<td></td>
<td>915</td>
<td></td>
</tr>
<tr>
<td>IMFG 1250</td>
<td>Advanced Programmable Controllers Mechatronics</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>105</td>
</tr>
<tr>
<td>IMFG 2800</td>
<td>Advanced Process Control Mechatronics</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>120</td>
</tr>
<tr>
<td>Elective or Coop</td>
<td></td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>90</td>
</tr>
<tr>
<td>Elective or Coop</td>
<td></td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>90</td>
</tr>
<tr>
<td>JOBS 2450</td>
<td>Job Seeking Skills</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>----</td>
</tr>
<tr>
<td>TD – INDUSTRIAL MANUFACTURING – (ELECTRICAL &amp; INSTRUMENTATION CONCENTRATION)</td>
<td></td>
<td>45</td>
<td>1350</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MILLWRIGHT CONCENTRATION: (Core + the following)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Hours</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMFG 1320</td>
<td>Millwright I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>IMFG 1321</td>
<td>Millwright I Lab</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>IMFG 1420</td>
<td>Millwright II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>IMFG 1421</td>
<td>Millwright II Lab</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>IMFG 1130</td>
<td>Pneumatics Applications</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>CTS – MILLWRIGHT APPRENTICE</td>
<td></td>
<td>29</td>
<td>840</td>
<td></td>
</tr>
<tr>
<td>IMFG 1325</td>
<td>Pipefitting</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>IMFG 1140</td>
<td>Hydraulics Applications</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>IMFG 1210</td>
<td>Material Handling</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>IMFG 1315</td>
<td>Welding</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Elective or Co-op</td>
<td></td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Elective or Co-op</td>
<td></td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>JOBS 2450</td>
<td>Job Seeking Skills</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>45</td>
</tr>
</tbody>
</table>

### MACHINIST TECHNOLOGY CONCENTRATION: (Core + the following)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Hours</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMFG 1110</td>
<td>Shop Mathematics</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>IMFG 1310</td>
<td>Machine Shop I</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>IMFG 1340</td>
<td>Basic Lathe</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>IMFG 1440</td>
<td>Basic Mill</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CTS – BASIC MACHINE TOOL TECHNOLOGY</td>
<td></td>
<td>31</td>
<td>945</td>
<td></td>
</tr>
<tr>
<td>IMFG 1410</td>
<td>Machine Shop II</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>IMFG 2710</td>
<td>CNC</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Elective or Co-op</td>
<td></td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>JOBS 2450</td>
<td>Job Seeking Skills</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>TD – INDUSTRIAL MANUFACTURING – (MACHINE TOOL TECHNOLOGY CONCENTRATION)</td>
<td></td>
<td>45</td>
<td>1350</td>
<td></td>
</tr>
</tbody>
</table>

FALL 2020