



## COURSE OUTLINE: MTF133 - MACHINE OPERATIONS

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Approved: Corey Meunier, Chair, Technology and Skilled Trades

<b>Course Code: Title</b>	MTF133: MACHINE OPERATIONS
<b>Program Number: Name</b>	4051: METAL FABRICATION 4053: WELDING TECHNIQUES
<b>Department:</b>	IRONWKR APPR./WELDING RELATED
<b>Semesters/Terms:</b>	19W
<b>Course Description:</b>	Use fabrication equipment for forming plate and structural shapes in accordance with government safety regulations, manufacturer recommendations, and approved industry standards.
<b>Total Credits:</b>	2
<b>Hours/Week:</b>	2
<b>Total Hours:</b>	30
<b>Prerequisites:</b>	There are no pre-requisites for this course.
<b>Corequisites:</b>	There are no co-requisites for this course.
<b>Vocational Learning Outcomes (VLO's) addressed in this course:</b>	<p><b>4051 - METAL FABRICATION</b></p> <p>VLO 2 Apply knowledge of various welding and metal cutting techniques and theories to produce components and sub-assemblies.</p> <p>VLO 3 Prepare materials by utilizing fabrication machinery and equipment.</p> <p>VLO 6 Develop project plans relating to component and sub-assembly production.</p> <p>VLO 7 Complete all work in compliance with health and safety legislation and prescribed organizational practices and procedures to ensure safety of self and others.</p> <p>VLO 8 Work responsibly and effectively in accordance with government safety regulations, manufacturer's recommendations and approved industry standards.</p> <p><b>4053 - WELDING TECHNIQUES</b></p> <p>VLO 1 Perform work responsibly and in compliance with the Occupational Health and Safety Act.</p> <p>VLO 3 Recognize and understand use of welding symbols.</p> <p>VLO 4 Use layout and fabrication processes typical to the industry to determine correct form with accuracy.</p> <p>VLO 5 Select appropriate tools and devices to perform mathematical calculations and technical measurements for successful completion of a project.</p>
<b>Essential Employability Skills (EES) addressed in this course:</b>	<p>EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.</p> <p>EES 10 Manage the use of time and other resources to complete projects.</p> <p>EES 11 Take responsibility for ones own actions, decisions, and consequences.</p>
<b>Course Evaluation:</b>	Passing Grade: 50%, D



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**Other Course Evaluation & Assessment Requirements:**

1. Late hand in penalties will be 10% per day. Assignments will not be accepted past one week late unless there are extenuating and legitimate circumstances.
2. If a student misses a test/lab he/she must have a valid reason (i.e. medical or family emergency documentation shall be required). In addition, the instructor MUST be notified PRIOR to the test or lab sitting. If this procedure is not followed the student will receive a mark of zero on the test/lab with no make-up option.
3. Re-writes are NOT allowed for any written assignment, quiz or test.
4. Repeats are NOT allowed for any shop test.
5. Course attendance is mandatory. One percent (1 %) per hour will be deducted from the final course grade for unexcused\* absence.

Valid reasons would include:

Doctors note

Family Death or Serious Illness supported by a written note.

**Course Outcomes and Learning Objectives:**

Course Outcome 1	Learning Objectives for Course Outcome 1
Use fabrication equipment for forming plate and structural shapes in accordance with government safety regulations, manufacturer`s recommendations and approved industry standards	<p>Upon successful completion of this course, the student will demonstrate the ability to:</p> <ol style="list-style-type: none"> <li>1. Describe operation and maintenance of common fabrication equipment. <ul style="list-style-type: none"> <li>- Plate shears</li> <li>- Iron worker</li> <li>- Drills</li> <li>- Band saws</li> <li>- Benders</li> <li>- Chop Saw</li> </ul> </li> <li>2. Select and demonstrate functions of common fabrication machinery and their safety systems. <ul style="list-style-type: none"> <li>- Plate shears</li> <li>- Drill presses</li> <li>- Band saws</li> <li>- Safe retrieval of drops and marking piece/part number</li> <li>- Safety systems</li> <li>- Applicable codes and manufacturer`s recommendations</li> </ul> </li> </ol>

**Evaluation Process and Grading System:**

Evaluation Type	Evaluation Weight	Course Outcome Assessed
Band Saw	16%	
Chop Saw	16%	
Drill Press	16%	
Ironworker	36%	
Plate Shear	16%	

**Date:**

August 22, 2018

Please refer to the course outline addendum on the Learning Management System for further information.

