



COURSE OUTLINE

MTF235

Prepared: Dave Holley Approved: Corey Meunier

Course Code: Title	MTF235: PATTERN AND TEMPLATE DEVELOPMENT 2
Program Number: Name	4051: METAL FABRICATION
Department:	IRONWKR APPR./WELDING RELATED
Semester/Term:	17F
Course Description:	In this course students will taught how to develop and layout templates and patterns, through the interpretation of drawings, using common layout and measuring tools, applying shop formulas and performing calculations to ensure the accuracy and functionality to meet the tolerances specified in the blueprints and specifications of the manufactured item.
Total Credits:	3
Hours/Week:	3
Total Hours:	45
Prerequisites:	MTF207
Substitutes:	MTF200
Vocational Learning Outcomes (VLO's): Please refer to program web page for a complete listing of program outcomes where applicable.	4051 - METAL FABRICATION #1. Interpret blueprints and produce basic drawings and bills of materials. #4. Create and use patterns and templates using common layout and measuring tools. #6. Develop project plans relating to component and sub-assembly production. #7. Complete all work in compliance with health and safety legislation and prescribed organizational practices and procedures to ensure safety of self and others. #8. Work responsibly and effectively in accordance with government safety regulations, manufacturer's recommendations and approved industry standards.
Essential Employability Skills (EES):	#3. Execute mathematical operations accurately. #4. Apply a systematic approach to solve problems. #5. Use a variety of thinking skills to anticipate and solve problems. #10. Manage the use of time and other resources to complete projects. #11. Take responsibility for ones own actions, decisions, and consequences.
Course Evaluation:	Passing Grade: 50%, D
Other Course Evaluation &	1. Late hand in penalties will be 10% per day. Assignments will not be accepted past one week

Assessment Requirements:

- 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.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
45 Lateral	20%
Mismatched Shapes	20%
Oblique Cone	20%
Reducing Elbow	20%
Tru Wye	20%

Course Outcomes and Learning Objectives:**Course Outcome 1.**

Curriculum based on a combination of theoretical knowledge and practical (hands on) skill related to the development and creation of patterns and templates.

Learning Objectives 1.

Develop patterns and templates employing triangulation method.

- oblique cones
- oblique cones with elliptical elements
- rectangle to round
- rectangle to elliptical
- reducing elbows
- hoppers and chutes
- mismatched shapes
- truncated shapes

Use mathematical problem solving techniques to support the development of patterns.

- square to round
- tapered rectangular shapes
- tapered conical shapes
- trigonometry
- ratio and proportion
- Pythagorean theorem

Date:

Monday, December 18, 2017

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