COURSE OUTLINE: MTF238 - BLUEPRINTS/PATTERNS

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Course Code: Title	MTF238: BLUEPRINTS AND PATTERNS
Program Number: Name	4051: METAL FABRICATION
Department:	IRONWKR APPR./WELDING RELATED
Academic Year:	2023-2024
Course Description:	Students are to use skills developed in applied blueprint reading and Advanced Blueprinting classes, to produce a complete drawing package. Drawings to include Assembly, Shop prints, detailed views of each component and field sketches overall material and cutting list. This complete set of drawings will correspond to the individual shop project students are to build in Field Fitting and Layout.
Total Credits:	2
Hours/Week:	2
Total Hours:	28
Prerequisites:	MTF140
Corequisites:	There are no co-requisites for this course.
Substitutes:	MTF232
Vocational Learning Outcomes (VLO's) addressed in this course: **Please refer to program web page for a complete listing of program outcomes where applicable.**	**4051 - METAL FABRICATION** VLO 1 Interpret blueprints and produce basic drawings and bills of materials. VLO 4 Create and use patterns and templates using common layout and measuring tools. VLO 6 Develop project plans relating to component and sub-assembly production. 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. VLO 8 Work responsibly and effectively in accordance with government safety regulations, manufacturer's recommendations and approved industry standards.
Essential Employability Skills (EES) addressed in this course:	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. EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication. EES 3 Execute mathematical operations accurately. EES 4 Apply a systematic approach to solve problems. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others. EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.

	EES 10 Manage the use of time and other resources to complete projects. EES 11 Take responsibility for ones own actions, decisions, and consequences.
Course Evaluation:	Passing Grade: 50%, D A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.
Other Course Evaluation & Assessment Requirements:	1. Late hand in penalties will be -10% per day. 2. If a student misses a test, 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 sitting. If this procedure is not followed the student will receive a mark of zero on the test with no make-up option. 3. Re-writes are NOT allowed for any written assignment, quiz or test. 4. Course attendance is mandatory. Any student that is not present for the first 3 classes in each course, will be deemed to have not completed the required safety orientation for the course and will not be permitted to continue. One percent (1 %) per hour will be deducted from the final course grade for unexcused* absence. Any unexcused attendance beyond 15% of the total allocated course hours will result in the student receiving a failing grade for the course. Valid reasons would include: Doctors note Family Death or Serious Illness supported by a written note. Unexcused absence* will be determined in a case by case basis by the instructor of each course.
Books and Required Resources:	IPT`s Metal Trades & Welding Publisher: IPT Publishing & Training Ltd Kit: ILM Post Secondary Package by Alberta Government Publisher: AK Graphics, Sault College Print Shop

Course Outcomes and Learning Objectives:

Course Outcome 1	Learning Objectives for Course Outcome 1
Students are to use skills developed in MTF 140 and 200 Blueprinting classes, to produce a complete drawing package. Drawings to include Assembly, Shop prints, Detailed views of each component and field sketches. This complete set of drawings will correspond to the individual shop project students are to build in MTF 236.	Field Sketch Potential Elements of the Performance: Produce accurate Field sketch Transfer dimensions as directed for customer. Ensure correct sizing and placement Visualize product is workable Obtain customers approval Shop Drawings Potential Elements of the Performance: Create workable Shop Drawings Develop individual orthographic views or each component Supply detailed views of each for construction Notes and specifications Dimensioning Holes Threads Welding symbols

	Welding procedures and specifications, notes Assembly Drawing Potential Elements of the Performance: Produce Assembly Drawing Use field sketch, shop drawings and detailed views Add any revisions required to complete product List all part numbers and materials are listed.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Hand in Assignments	80%
Tests	20%

Date: May 31, 2023

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