

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: DRAFTING

Code No.: DRF 108-3

Program: WELDING AND FABRICATING

Semester: 2

Date: SEPTEMBER, 1983

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New: _____ Revision: X

APPROVED: *L.P. Crozitto*
Chairperson

Date 83/09/09

DRAFTING

DRF 108-3

COURSE NAME

COURSE NUMBER

PHILOSOPHY/GOALS:

To develop an understanding of the use of drawings as a means of communication

To produce neat sketches of mechanical and structural features.

To develop the skill of accurate interpretation of given information and to be able to convert this into a working drawing.

To develop the skill of accurate interpretation of welding symbols.

To acquire the skill of basic development and layout work.

METHOD OF ASSESSMENT (GRADING METHOD):

Each project will be judged and a value of A, B, or C given.

TEXTBOOK(S):

Blueprint Reading for Welders: A. E. Bennet, Louis J. Siy

Engineering DWG: Jensen/Helsel

REFERENCE TEXTS:

Design of Weldment: Omer W. Blodgett

Sheet Metal Drafting: M. L. Betterly (McGraw-Hill)

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UNIT 1:

Demonstrate ability to draw in isometric and oblique.

UNIT 2:

Demonstrate ability to layout an irregular flat shape.

Demonstrate ability to develop right prisms.

Demonstrate ability to develop right truncated prisms.

Demonstrate ability to develop two piece elbows (90°).

Demonstrate ability to develop multi-piece elbows (90°).

Demonstrate ability to develop laterals.

Demonstrate ability to develop a tee.

Demonstrate ability to develop a concentric reducer.

Demonstrate ability to develop an orange peel head.

Demonstrate ability to develop an eccentric reducer.

Demonstrate ability to develop by method of triangulation, truncated pyramids.

Demonstrate ability to develop by method of triangulation, transition pieces.

Demonstrate ability to enlarge a shape using trinagulation.

UNIT 3:

To know structural symbols and abbreviations.

To do material callouts.

To be able to calculate clearance and interference.

To read structural sections and details.

To layout a simple beam.

To layout a simple column.

To layout a simple stair and handrail.

To know building and structural terms and parts.

NUMBER	PERIODS	TOPIC DESCRIPTION	REFERENCE
1	15	<u>PICTORIAL DRAWING:</u> - oblique - isometric solid objects - isometric pipe lines	
2	15	<u>DEVELOPMENT:</u> - pattern layout fundamentals - development of: - box, cone, pyramid - truncated cylinder, pyramid and cone - "Y" and "T" pieces - elbows - transition pieces - practical sheet metal objects - cone intersections - sphere - "Approximation"	
3	12	<u>LAYOUT:</u> - structural symbols and abbreviations - material callout - steel handbook - clearance and interference - structural erection and shop drawings - details - simple beams, columns, stairs - weld symbol drawing and interpretation - building terms	
4	As Req'd	<u>BLUEPRINT READING:</u> - elementary orthographic - mechanical detail - structural detail	