SAULT COLLEGE
of Applied Arts and Technology
Sault Ste. Marie

COURSE OUTLINE

Blueprint Reading

&

Technical Sketching

DRF 115-4

for H.E.D.

(was DRF 106-4 & common to Machine Shop & H.E.D.)

Sent to
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revised May, 1979 by Mr. G. MacLean

Blueprint Reading & Technical Sketching

For H.E.D.

Reference Books

1. Interpreting Engineering Drawings by Jensen & Hines
   (Delmar Publishers)

* 2. Blueprint Reading For Industry by W. C. Brown
   (Goodheart-Willcox Co.)

3. Technical Freehand Drawing and Sketching by Knowlton, Beauchemin, Quinn
   (McGraw-Hill)

* Recommended as a text.

General Objectives

1. Make the student aware of the standard methods used to describe mechanical details and assemblies on technical drawings.

2. Provide practice in the interpretation of technical drawings.

3. Introduce the techniques that will aid the student in the making of neat freehand technical sketches.

4. Provide practice in the making of freehand sketches to communicate technical ideas, based on the same standard methods used in technical drawing.

Topic Number	Periods	Topic Description	Reference
1	6	Freehand Sketching 1. Techniques - straight lines - proportion - arcs and circles - ellipses - approximation of angles - Division of a line into a given no. of parts - standard lines 2. Practice in Sketching of Familiar Shapes	
2	6	Orthographic Projection 1. Selection of appropriate views 2. Sketching of objects with square and inclined surfaces 3. Sketching of objects having arcs and circles	
3	6	Pictorial Sketching 1. Sketching of objects with isometric lines, non-isometric lines, arcs and circles. 2. Isometric views of assemblies 3. Oblique sketches	
4	2	Lettering 1. Practice in vertical Gothic lettering	
5	2	Dimensioning 1. Rules 2. Practice	
6	4	Screw Threads 1. Types of representation 2. Drawing call-up of inch and metric threads	
7	2	Tolerances 1. Limits 2. Bilateral and unilateral tolerancing 3. Minimum & maximum clearance between mating parts.	
8	6	Sections 1. Cutting plane 2. Section Lining 3. Types of sections 4. Assembly sections	

ɔic Number	Periods	Topic Description	Reference
9	2	Auxiliary Views	
10	2	Weld Symbols	
11	2	Structural Steel Shapes & Drawing Call-up	
12	2	Shop Terms and Standard Abbreviations	
13	4	Gears 1. Identification of types 2. Basic terms used on drawings 3. Gear trains	
14	4	Hydraulic Systems 1. Cutaway Diagrams 2. Standard colour code.	
15	10	Interpreting of Technical Drawings	