

SAULT COLLEGE  
of Applied Arts and Technology  
Sault Ste. Marie

COURSE OUTLINE

DRAFTING

DRF 102-6

for MTY-2

revised June, 1981 by G. MacLean

DRAFTING

DRF 102-6

GENERAL OBJECTIVES:

This is a continuation of the first semester Drafting course (DRF 100-6).

1. It is intended to provide the student with further knowledge of the standard methods used in the description of mechanical parts on technical drawings.
2. It is intended to provide practice in the interpretation of industrial working drawings.
3. It is intended to emphasize the continued need for good quality linework and drawing technique.

1979 06 06  
/mlb

DRAFTING

DRF 102-6 (for MTY-2)

TEXT: 'Engineering Drawing and Design, SI Metric'  
Jensen - McGraw Hill

REFERENCE BOOKS:

1. Machinery's Handbook - Industrial Press
2. C.S.A. standard B78.1
3. C.S.A. standard B78.2

## COURSE OUTLINE

### DRF 102-6

<u>Approx. No. of Hours Class Time</u>	<u>Topic No.</u>	<u>Topic Information</u>
6	1.	Review of work covered in MTY-1 (DRF 100-6) Drafting.
2	2.	Standard abbreviations and symbols.
6	3.	Limits and Fits: <ul style="list-style-type: none"><li>- methods of specifying tolerances</li><li>- use of American Standard fit tables for determination of tolerances on mating parts.</li></ul>
10	4.	Screw Threads: <ul style="list-style-type: none"><li>- the helix</li><li>- thread nomenclature</li><li>- standard thread profiles</li><li>- pictorial, schematic and simplified thread representation</li><li>- recommended applications for various thread forms and series</li><li>- standard call-up for inch and metric threads</li></ul>
4	5.	Standard Threaded Fasteners: <ul style="list-style-type: none"><li>- definitions of bolts, capscrews and machine screws</li><li>- representation of fasteners with various head types in assembly drawings</li></ul>
4	6.	Miscellaneous Mechanical Fasteners: <ul style="list-style-type: none"><li>- types of keys</li><li>- dimensioning of key ways and key seats</li></ul>
4	7.	Engineering Materials: <ul style="list-style-type: none"><li>- uses of some carbon and alloy steels</li><li>- properties and uses of gray ductile, white and malleable irons</li><li>- designation of type of material and heat treatment on drawings.</li></ul>

<u>Approx. No. of Hours Class Time</u>	<u>Topic No.</u>	<u>Topic Information</u>
10	8.	Cams: <ul style="list-style-type: none"> <li>- types of cams and followers</li> <li>- nomenclature</li> <li>- displacement diagrams for uniform, modified uniform, parabolic, and harmonic follower motion</li> </ul>
12	9.	Sheet Metal Development: <ul style="list-style-type: none"> <li>- types of seams</li> <li>- parallel line development</li> <li>- radial line development</li> <li>- use of triangulation in development</li> </ul>
12	10.	Gears: <ul style="list-style-type: none"> <li>- types of gears</li> <li>- nomenclature</li> <li>- involute curve</li> <li>- representation of spur gear teeth</li> <li>- spur gear formulas</li> <li>- information required on a working drawing of a spur gear</li> </ul>
10	11.	Interpretation of Industrial Drawings: <ul style="list-style-type: none"> <li>- detail, sub-assembly, final assembly drawings</li> <li>- bill of material</li> <li>- typical symbols and notes</li> <li>- methods of specifying general tolerances</li> <li>- drawing change records</li> </ul>