

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: STRUCTURAL DRAFTING
Code No.: DRF 209
Program: ARCHITECTURAL TECHNICIAN (DRAFTING)
Semester: III
Date: JUNE, 1983
Author: G. FRECH

New: _____ Revision: X

APPROVED:

J.P. Anzietto
Chairperson

Date

STRUCTURAL DRAFTING
Course Name

DRF 209
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PHILOSOPHY/GOALS:

The course aims at making the student familiar with drawing skills as related to structural steel. It familiarizes the student with phases of structural drawing from line drawings to shop drawings. Upon completion he/she will be able to detail simple beams and columns making use of the C.I.S.C. Steel Handbook, shop methods, standards, prepare and read erection drawings.

METHOD OF ASSESSMENT (GRADING METHOD):

A - 86-100%
B - 70-85%
C - 55-69%
X - work to be made up or upgraded
R - repeat

- Marks accumulated and averaged by assignments and tests
- All assignments to be handed in on time otherwise loss of marks will result or new assignments issued
- attendance and lateness can be used in assessment.

TEXTBOOK(S):

C.I.S.C. Steel Handbook

C.I.S.C. Fundamentals of Shop Drafting

Reference - Architectural Drawings

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|----|----|--|
| 1. | 3 | <u>Structural Shapes</u> <ul style="list-style-type: none">- parts- callouts- standard guages- standard charts- pitch- tables |
| 2. | 6 | <u>Drawings</u> <ul style="list-style-type: none">- line drawings- elevations and plans- drawing office procedures- grids- building parts- structural drawing reading- column schedule |
| 3. | 3 | <u>Connections</u> <ul style="list-style-type: none">- standard headers- seats- gussets- end plans and wrapped |
| 4. | 12 | <u>Beam Detail</u> <ul style="list-style-type: none">- Clearance and interference- G.O.S.L.- running dimensions- bill of material- right and left hand |
| 5. | 9 | <u>Column Detail</u> <ul style="list-style-type: none">- elevations- calculations |
| 6. | 3 | <u>Girt, Purlins, Bracing</u> <ul style="list-style-type: none">- connecting- detailing |
| 7. | 6 | <u>Gusset Plates</u> <ul style="list-style-type: none">- use of- clearance calculations- Smoley's Tables |
| | 9 | <u>Tests and Assignments</u> |

STRUCTURAL DRAFTING

DRF 209

SPECIFIC OBJECTIVES:

The student will be able to:

- identify structural shape and call for
- know standard gauges, centers
- identify gauges, centers and pitch
- use structural tables
- identify line drawings and use information given
- read structural steel drawings
- use standard header details for connecting
- use standard seats for connecting
- use gussets for connecting
- detail simple beams using standard clearance and interference & running dimensions
- make and weigh a bill of material
- understand right and left hand notation
- detail a simple column
- detail cirts and purlins
- detail a truss panel point using standard clearance and Smoley Tables
- identify building parts