

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

COURSE OUTLINE

Course Title: STRUCTURAL TIMBER DESIGN  
Code No.: ARC 311-3  
Program: CIVIL AND ARCHITECTURAL TECHNOLOGY  
Semester: FIVE  
Date: FEBRUARY, 1985  
Author: G. Frech

New: x Revision:         

APPROVED: *G.P. Crozitto*  
Chairperson Date

STRUCTURAL TIMBER DESIGN

Course Name

ARC 311-3

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PHILOSOPHY/GOALS:

To equip the student to work and design in timber, using standard procedures and theory.

METHOD OF ASSESSMENT (GRADING METHOD):

A - 85 - 100%  
B - 75 - 84%  
C - 60 - 74%  
R - 0 - 59%

Evaluation will be based on tests, mid-term test and final exam.

Term work - 50%  
Final exam- 50%

100%

TEXTBOOK(S):

Timber Design Manual  
(Text to be chosen by instructor)

1

Classification of Wood

Density  
Defects  
Classification  
Dimensions  
Working Stresses  
Fire Ratings

2

Beams

Design of  
End Bearing  
Notched Beams  
Built Up  
Flitched  
Keyed  
Laterally Unsupported

3

Plank and Laminated Floors

Design  
Deflection

4

Wood Columns Design

Square  
Round  
Spaced  
Built Up With Mech. Fasteners  
Glue Laminated  
False Work  
Axial Compression & Bending  
Eccentric Loads

5

Connectors

Bolted Joints  
Direction of Load on Grain  
Design  
Placement  
Timber Connector Types  
Stresses  
Allowable Loads  
Joint Design  
Nails

6

Trusses

Split Ring Connections  
Plate Connections  
Member Design

TOPIC NO.	POS.	TOPIC INFORMATION
7		<u>Laminated</u> Glued Laminated Members Stresses in Laminated Types Arches Design of Laminated Beams Design of Laminated Arches
8		<u>Drawing</u> Details to Suit Throughout The Course