

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON

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COURSE TITLE: TRADE CALCULATIONS

CODE NO: IRN 703 SEMESTER: N/A

PROGRAM: INTERMEDIATE IRONWORKER

AUTHOR: D. SOCCHIA

DATE: Jan 1994 PREVIOUS OUTLINE DATED: June 1993

APPROVED:   
• Dean, School of Technical Trades

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TOTAL CREDIT HOURS: 24 @ (8 x 3hrs)

PREREQUISITE(S): Ironworker apprenticeship plus the successful completion of the basic level of training.

I. PHILOSOPHY/GOALS:

To provide apprentices with the necessary background and academic training to solve job related problems that require, or are made easier to handle thru the use of mathematical calculations.

STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the student will:

- 1) Identify and select mathematical formula appropriate to the needs of the trade.
- 2) Perform typical job related calculations involving area, weight of steel, inclined planes and square roots without the use of a calculator.

III. TOPICS TO BE COVERED:

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|--|----------|
| 1. Course Introduction and Orientation   | 1 hr.    |
| 2. Review Formula and Calculations of Area for Square, Rectangle, Triangle, Circle and Cylinder. | 2 hr     |
| 3. Calculations of Area for Arches and Cones   | 3 hr     |
| "ReVTew"ATsTgnrnt // T   | Homework |
| THEORY TEST // 1 and REVIEW  | 2 hr     |
| 4. Determine Square Roots w/o Calculator   | 3 hr     |
| 5. Determine Weights of Various Steel Shapes.  | 3 hr     |
| Review Assignment // 2   | Homework |
| THEORY TEST // 2 and REVIEW  | 2 hr     |
| 6. Vector Diagrams and Inclined Planes   | 6 hr     |
| Review Assignment // 3   | Homework |
| THEORY TEST #3   | 2 hr     |

V. EVALUATION METHODS: ( INCLUDES ASSIGNMENTS, ATTENDANCE REQUIREMENTS ETC. )

General Assessment	Final Mark
A = 85 to 100 %	Review Assignments = 30 %
B = 75 to 84 %	Theory Tests = 70 %
C = 60 to 74 %	Total = 100 %
D = 50 to 59 %	
F - 0 to 49 %	

**REQUIRED STUDENT RESOURCES**

Scientific Calculator  
3 Pens - ( 1 blue, 1 black, 1 red )  
Binder c/w Paper  
Ironworker Texts.

**SPECIAL NOTES**

Attendance to all classes is mandatory and will be recorded on an hour by hour basis using the 'Record of Attendance' form.

The Instructor reserves the right to modify and or change the course objectives and topics in order to better serve the needs of the class.