## SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

## SAULT STE. MARIE, ON

# **COURSE OUTLINE**

COURSE TITLE: TRADE PRACTICAL

CODE NO: IRN 701 SEMESTER: APPRENTICESHIP

PROGRAM: INTERMEDIATE IRONWORKER

AUTHOR: P. MARTINSEN

DATE: January 1995 PREVIOUS OUTLINE DATED: January 1994

APPROVED:

Dean, School of Technical Trades Date

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TOTAL CREDIT HOURS: 10

## PREREQUISITE(S):

## PHILOSOPHY/GOALS:

During this course apprentices will enhance their mechanical skills and by the use of proper procedures have a better concept in steel erection, rigging, curtain wall and reinforcing robotics.

## STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the student will be able to:

- 1. Bend, lay-out and tie reinforcing steel.
- 2. Calculate the S.W.C. of wire rope, functions of rigging, testing by the Construction Safety Association, Safety in Rigging.
- 3. Splice Wire Rope.
- 4. Lay-out handrail and fabricate ornamental steel.

## TOPICS TO BE COVERED:

- 1. Reinforcing
- 2. Cranes
- 3. Hoisting Apparatus
- 4. Structural Erection
- 5. Erection Techniques
- 6. Safety
- 7. Rigging
- 8. Lay-out
- 9. Fabrication
- 10. Welding
- 11. Rigging
- 12. Wire Rope

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# IV. **LEARNING ACTIVITIES**

## **REQUIRED RESOURCES**

Unloading and Sorting

Print Reading

Types of Tie

Reinforcing Bar Placing; Footings

Re-Bar Placing; Columns
Re-Bar Placing; Walls
Re-Bar Placing; Beams
Reading Specific Drawings,
Schedules and Detail Sheets
Re-Bar Placing; Joists, Slabs,

Plates Inspection

Wire Rope Handling

Wire Rope Attachments

Wire Rope Splicing

Hooks

Shackles

Chokes and Slings

Guy Lines

Blocks and Tackle

Use of Portable Hoisting

Equipment

Welding

Selecting Electrodes

Selecting and Using Welding

Equipment

Erection General Steel Erection Methods of Erection Transportation

Fitting Up

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

Class projects, graded on efficiency, skill, precision wire rope splicing, lay-out, fabrication, welding.

Attendance and attitude 15%.

## VI. REQUIRED STUDENT RESOURCES

Tools, safety glasses, hard hats, etc.

# VII. ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY

## VIII. SPECIAL NOTES

Students with special needs (eg. physical limitation, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required ccommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of the students.