

TOTAL CREDIT HOURS: 3

PREREQUISITES: NONE

I. PHILOSOPHY/GOALS:

The intent of this course is to provide the student with knowledge and understanding of the collection, application and communication of information relative to construction projects, performance of work according to contract documents, standards and codes, and the management and administration of construction projects including human resources.

II. STUDENT PERFORMANCE OBJECTIVES (OUTCOMES):

Upon successful completion of this course the student will demonstrate the ability to:

- 1) Collect, interpret and communicate construction project information.
- 2) Perform work according to applicable laws, standards, bylaws and codes.
- 3) Interpret and prepare time, cost, and quality reports.
- 4) Evaluate methods employed in construction projects.
- 5) Recognize the interdependence of various disciplines in construction projects.
- 6) Identify issues related to human resource management of construction projects.

III. TOPICS TO BE COVERED:

- 1) Contract Documents
- 2) Laws, Codes and Standards
- 3) Time and Resource Planning
- 4) Construction Project Reporting and Communication
- 5) Relationship and Roles of Disciplines in Construction Projects
- 6) Human Resource Management in Construction

IV. LEARNING ACTIVITIES / REQUIRED RESOURCES

1. Contract Documents

Learning Activities: In class instruction, practical exercises and assignments:

Identify Contract Documents
Use Standard Contract Documents
Interpret Contract Documents

Resources: handouts and overheads

2. Laws, Codes and Standards

Learning Activities: In class instruction, practical exercises and assignments:

Perform a Part 9 Building Code Check for a Construction Project
Understand the Influence of Health and Safety Regulations
Interpret Municipal Bylaws for a Construction Project
Demonstrate Knowledge of Labour Laws
Discuss Aspects of Maintaining Quality
Report in Written Form on Project Quality

Resources: case studies, handouts, overheads, guest speaker subject to availability

3. Time and Resource Planning

Learning Activities: In class instruction, practical exercises and computer based assignments:

Recognize Terms and Definitions Related to Time and Resource Planning
Prepare a Work Breakdown Structure (WBS)
Prepare a Gantt Bar Chart Using Project Planning Software (Tutorial)
Discuss Allocation of Human Resources for a Construction Project

Resources: case studies, handouts, overheads, computer lab

4. **Construction Project Reporting and Communication**

Learning Activities: In class instruction, practical exercises and assignments:

- Discuss the Importance of Communication
- Use Appropriate Means of Communication
- Review Methods for Conducting a Construction Project Site Meeting
- Describe Methods for Maintaining Project Records and Producing Documentation

Resources: case studies, handouts, overheads

5. **Relationship and Roles of Disciplines in Construction Projects**

Learning Activities: In class instruction, practical exercises and assignments:

- Discuss Roles of Various Disciplines in a Construction Project
- Recognize Principles and Practices of Various Disciplines
- Identify the Appropriate Specialist for Problem Resolution

Resources: case studies, handouts, overheads

6. **Human Resource Management in Construction**

Learning Activities: In class instruction, exercises and assignments:

- Discuss Employee-Employer Obligations and Liabilities
- Describe the Performance of Work in Context of Collective Agreements
- Review Organizational and Time Management Strategies
- Contribute to a Construction Project as a Member of a Team

V. **EVALUATION METHODS:**

A final grade will be derived based on tests, assignments and attendance and participation as follows:

Attendance and Participation	10%
Assignments and Quizzes	30%
Midterm Test	25%
<u>Final Test</u>	<u>35%</u>
Total	100%

The standard Sault College grading system used will be as follows:

A+	90-100%
A	80-89%
B	70-79%
C	55-69%
R	Repeat

1. Late assignments will not receive a grade higher than 'C' (62). Assignments submitted after marked assignments have been returned, will not be accepted.
2. Minimum acceptable grade for this course is 55%.

VI. **STUDENT RESOURCES**

Required Text:

None required.

Additional References:

Total Engineering Project Management
G. Ritz
McGraw Hill Book Company

The Contractors Guide to Construction Law
E.J. Brogden
McGraw Hill Book Company

The Law for Professional Engineers
D.L. Marston
McGraw Hill Book Company

Construction Methods and Management
S.W. Nually
Prentice Hall

Ontario Building Code
Government of Ontario

City of Sault Ste. Marie
Bylaw 4500

VII. SPECIAL NOTES

Students with special needs (i.e., physical limitations, visual impairments, hearing impairments, or learning disabilities), are encouraged to discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as deemed necessary to meet the needs of students.