SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE: CONSTRUCTION METHODS

CODE NO. : CON 204 **SEMESTER:** IV&VI

PROGRAM: CIVIL/CONSTRUCTION TECHNOLOGY

AUTHOR: S. IENCO

DATE: JAN 01 **PREVIOUS OUTLINE DATED:**

APPROVED:

_____ _____

DEAN **DATE**

TOTAL CREDITS: 4

PREREQUISITE(S): ARC133

HOURS/WEEK: 4

I. COURSE DESCRIPTION:

This course is designed for you to enhance all the skills gained to date by applying them toward the completion of a construction project. You will accomplish this by contributing effectively as a member of a team to design, draft, estimate, schedule, manage and construct a small project. The project is based on a house design of 80 square metre (864 square feet) scaled down to 9 square metre (100 square feet).

Throughout the construction of this project, you will adhere to the Ontario Occupational Health and Safety Act and Regulations for Construction Projects.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Communicate construction project-related information effectively and accurately by interpreting and producing data in graphic and written formats.

   Potential Elements of the Performance:
   - Prepare and present information as graphics by using standard drafting conventions
   - Modify graphics to meet criteria
   - Use correct format to prepare minutes of meetings correspondence, estimates and other documents
   - Record and report work activity

2. Interact with others in teams in ways that contribute to effective working relationships and achievement of goals.

   Potential Elements of the Performance:
   - Identify the tasks to be completed
   - Establish strategies to accomplish the tasks
   - Identify roles for members of the team in a timely fashion
   - Treat other members of the group equitably and fairly
   - Contribute one's own ideas, opinions, and information while demonstrating respect for those of others
   - Employ techniques intended to bring about the resolution of any conflicts
   - Regularly assess the group's progress and interactions and make adjustments when necessary

3. Work according to project specifications and drawings; and applicable law, standards, bylaws, and codes

   Potential Elements of the Performance:
   - Implement project specifications and drawings
   - Apply the Ontario Building Code for the design of the structure
   - Apply the Ontario Occupational Health and Safety Act and Regulations for Construction Projects
   - Fallow manufacturer's recommended directions for equipment and materials used
   - Carry out prescribed safety checks

4. Coordinate time, cost, and quality performance for construction projects.

   Potential Elements of the Performance:
   - Record and report work activity
   - Follow project schedules
   - Participate in the inspection of the project
   - Perform quality-assurance sampling and testing of concrete
   - Monitor the project by comparing activities and results to data from a variety of sources including established criteria, schedule, projected cost estimate, and actual costs
   - Apply collected and stored information accurately in decision making, reporting, and quality assurance
   - Participate in the resolution of construction problems related to materials, scheduling, resources, and budgetary concerns
   - Develop deficiency lists and take appropriate actions to resolve these deficiencies

5. Apply the principles of building science to interpret and solve technical problems related to the construction project.

   Potential Elements of the Performance:
   - Design the structure to conform to the Ontario Building Code
   - Draft the project using AutoCAD
   - Lay out the structure foundation plan using the necessary surveying equipment
   - Layout the structure in accordance to common surveying principles
   - Design the concrete formwork for the foundation
   - Construct the project by applying systematic approaches to problem solving and decision making

III. TOPICS:

1. Communication
2. Interaction with team members
3. Specifications, Drawings, Codes and Standards
4. Time and cost management
5. Building science principles

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Principles and Practices of Commercial Construction

By: Cameron K Andres and Ronald C. Smith

V. EVALUATION PROCESS/GRADING SYSTEM:

You will be assigned a final grade based on successful completion of laboratories, assignments and tests, weighted as follows:

Assignments/Quizzes	30%
Completion of Project within budget and scheduled time	30%
Midterm Test	20%
Final Test	20%
TOTAL	**100%**

Each assignment and quiz carries equal weight. Late assignment submittals receive only a maximum grade of 60%. However, assignments handed in later that one week will receive a grade of 0%.

An average of 60% on practical, and 60% on tests is required for successful completion of this course.

The following semester grades will be assigned to students in postsecondary courses:

Grade	Definition	Grade Point Equivalent
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see *Policies & Procedures Manual – Deferred Grades and Make-up*).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has not been possible for the faculty member to report grades.	

VI. SPECIAL NOTES:

Special Needs:
If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

Retention of course outlines:
It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Plagiarism:
Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course outline amendments:
The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

Testing Absence

If a student is unable to write a test on the date assigned, the following procedure is required:

- The student shall provide the Professor with advance notice preferably in writing of his/her need to miss the test.
- The student may be required to document the absence at the discretion of the Professor.
- All decisions regarding whether tests shall be re-scheduled will be at the discretion of the Professor.
- The student is responsible to make arrangements, immediately upon return to the College with his/her course Professor related to make-up of the missed test prior to the next scheduled class for the course in question.
- In the event of an emergency on the day of the test, the student may require documentation to support the absence and must telephone the College to identify the absence. The college has a 24 hour electronic voice mail system (759-2554) Ext. 600

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII. DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.