# SAULT STE. MARIE, ON SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

## **COURSE OUTLINE**

COURSE TITI	LE: BUILDING CODES & PRACTICES
CODE NO :	ARC 125 SEMESTER: I
PROGRAM:	ARCHITECTURAL TECHNICIAN
AUTHOR:	H. PIETRZAKOWSKI
DATE:	PREVIOUS OUTLINE DATED:
APPROVED:	DEAN DATE  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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ARC 125
COURSE CODE

TOTAL CREDITS:

PREREQUISITE(S): None

## I. PHILOSOPHY/GOALS:

This course will introduce the student to the regulations and codes governing the design and construction of architectural and engineering projects. Emphasis will be placed on both Federal / Provincial Codes and Municipal Zoning By-Laws.

## **II. STUDENT PERFORMANCE OBJECTIVES (OUTCOMES):**

Upon successful completion of this course the student will:

- 1) Identify the scope and intent of the "Provincial Building Code".
- 2) Identify the scope and intent of "Municipal Codes"
- 3) Define and describe common guidelines associated with building dimensions and allowable construction practices.
- 4) Identify the different building occupancy types, the special requirements for a specific occupancy type, and the preparation of code reviews / checks for given projects in the various stages of design.
- 5) Identify the parameters associated with Barrier Free Design.
- 6) Classify construction according to the relevant fire resistant nature of appropriate building materials.

### III. TOPICS TO BE COVERED:

- 1) Introduction to the Ontario Building Code
- 2) The Municipal Zoning By-Law (By-Law 4500)
- 3) Part 9 of the O.B.C.
- 4) Part 3 of the O.B.C.
- 5) Barrier Free Design
- 6) Fire Protection

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#### IV. LEARNING ACTIVITIES/REQUIRED RESOURCES

1. Introduction to the Ontario Building	z Code
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Learning Activities: In class instruction and practical exercises on:

Historical precedants and evolutionNational Building Code

- Organizational Framework

- Terminology and Basic Principles

**Resources:** 

O.B.C. - Part 1 & 2 Handouts and overheads

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#### 2. The Municipal Zoning By-Law

Learning Activities: In class instruction and practical exercises on:

- Terms and definitions

- Organizational Framework Conformity RequirementsStandard Zone Regulations

- Zoning Map Indexes - Parking Regulations

**Resources:** 

Handouts, overheads and demonstrations

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#### 3. Part 9: O.B.C.

<u>Learning Activities:</u> In class instruction, practical exercises and assignments on:
- Room and Space Dimensions

- Doors and Windows

- Stairs, Ramps, Handrails & Guards

- Means of Egress - Fire Protection

- Sound Control

- Building Construction (Specific)

Resources:

O.B.C. - Part 9

Chapters 7,8,9 - Architecture: Design, Engineering, Drawing

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#### 4. Part 3 : O.B.C.

<u>Learning Activities:</u> In class instruction, practical exercises and assignments on:
- Principles of Occupancy Type Classifications

- Types of Occupant Load

- Multiple Occupancy Requirements

- Combustible/Non-Combustible Construction

Resources:

O.B.C. : Part 3

Chapter 23 - Architecture: Design, Engineering, Drawing

Metric Design Manual Handouts and overheads

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#### 5. Barrier Free Design

<u>Learning Activities:</u> In class instruction, practical exercises and assignments on:
- Occupancy Requirements

- Design Standards

- Signage

- Additional Requirements

**Resources:** 

O.B.C. : Part 3

Metric Design Manual Handouts and overheads

#### 6. Fire Protection

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

- Fire Resistance Ratings

Fire Separations and Closures
Flame Spread Ratings
Size & Occupancy Requirements for Fire Safety

- Exiting Requirements

**Resources:** 

O.B.C. : Part 3

Handouts and overheads

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

A final grade will be derived as follows:

Attendance 10% 30% Assignments Midterm Test 25% **Final Test** 35%

Total

100%

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The grading system used will be as follows:

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

- Assignments will be collected on dates specified and will not only be graded for correct solutions, but will also be checked for neatness and layout of work. Late Assignments will not be accepted.
- 2) Minimum acceptable grade for this course is 55%.
- 3) If at the end of the semester the overall mark is below 55%, then it will be up to the instructor whether or not a rewrite test will be granted. The criteria employed for arriving at that decision is class attendance, class participation and overall grade, which should be at least 45%.
- 4) In the case a rewrite is granted, it will be permitted only once, it will cover the entire course outline and will limit the maximum obtainable grade for the course to 60%.

## VII. REQUIRED STUDENT RESOURCES

Required Text Ontario Building Code (1990)

### VIII. SPECIAL NOTES

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

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