

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

**COURSE OUTLINE**

**COURSE TITLE:** Building Codes and Practices  
**COURSE CODE:** ARC 125  
**PROGRAM:** Architectural Technician  
**SEMESTER:** III (Fall)  
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**DATE:** May 1996

**APPROVED:** \_\_\_\_\_  
(DEAN)

**DATE:** \_\_\_\_\_

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*192* 19-Aug-96



**TOTAL HOURS PER WEEK: 3**

**PREREQUISITES: NONE**

**I. COURSE DESCRIPTION**

This course provides the student with a comprehensive overview of the laws, regulations and codes governing design and construction of buildings. Emphasis will be placed on the Ontario Building Code and municipal regulations.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE**

(Generic skills learning outcomes placement on the course outline will be determined and communicated at a later date.)

**A. Learning Outcomes**

1. Describe the scope and intent of building regulations.
2. Identify the structure of and interpret the OBC and By-Law 4500
3. Evaluate compliance of a design with Section 3.7 (Barrier Free Design).
4. Diagram, size and assign fire ratings to separations, closures and exits.
5. Assess code compliance based on use and occupancy.

**B. Learning Outcomes and Elements of the Performance**

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

1. Describe the scope and intent of building regulations.

Elements of the Performance:

- describe the history and development of building regulation
- summarize the scope and intent of the Building Code Act
- differentiate provincial and municipal authority and enforcement

2. Interpret and identify the structure of the OBC and By-Law 4500.

Elements of the Performance:

- summarize the organization of Municipal By-Law 4500

- itemize the organization of the Ontario Building Code
- define commonly used terminology
- utilize documents referenced in the OBC
- state the relevance of Parts 3 and 9 to design and construction
- state requirements for conformity
- determine parking requirements for various occupancies
- interpret zoning requirements and variance applications

3. Evaluate compliance of a design with Section 3.7 (Barrier Free Design).

Elements of the Performance:

- list occupancy requirements and design standards
- utilize Section 3.7 to determine compliance of a given design
- propose changes to an existing non-conforming situation to allow compliance
- assess signage and safety requirements

4. Diagram, size and assign fire ratings to separations, closures and exits.

Elements of the Performance:

- distinguish between separations and fire resistance ratings
- define and identify exits and exit enclosures
- define closure and assign an appropriate fire rating to a closure
- determine occupant load and exit width
- calculate limiting distance and unprotected opening areas
- apply concepts of fire protective design to wall and floor assemblies
- define flame spread rating
- select an appropriate rated assembly from Part 9

5. Assess code compliance based on use and occupancy.

Elements of the Performance:

- analyze drawings and determine separation and exit requirements
- determine classification based on use and occupancy
- perform a code analysis on a given building or a set of drawings
- check drawings for compliance with Part 9
- check for compliance in an exit stair
- review construction details to determine conformity with code



**III. TOPICS**

Note: Topics inherently overlap and are not necessarily developed as isolated units or in the order presented.

1. History of Building and Development Regulations
2. Structure of the Ontario Building Code
3. Terminology and Definitions
4. Municipal By-Laws and Regulations
5. Use and Application of Part 9 of the Ontario Building Code
6. Use and Application of Part 3 of the Ontario Building Code
7. Barrier Free Design and Section 3.7 of the OBC
8. Fire Protection Concepts and Fire Protective Design

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS**

Ontario Building Code (1990)

The student will be expected to supply various other media and materials necessary to complete the assignments and projects.

Available in the library are a number of texts and periodicals related to building codes, building regulation, construction practices and procedures.

**V. METHOD OF EVALUATION (GRADING)**

Students will be assigned a final grade based on successful completion of tests, assignments, projects and attendance, weighted as follows:

|              |             |
|--------------|-------------|
| Assignments  | 30%         |
| Tests        | 60%         |
| Attendance   | 10%         |
| <b>TOTAL</b> |             |
|              | <b>100%</b> |

The course and curriculum are designed and limited to time based competency. Late assignments will receive a C (60) grade maximum. Assignments more than seven days overdue will receive a grade of zero.

A final letter grade will be assigned as follows:

|    |  |
|----|--|
| A+ | 90-100%  |
| A  | 80-89%   |
| B  | 70-79%   |
| C  | 55-69%   |
| R  | Repeat   |
| X  | A temporary grade limited to situations with extenuating circumstances, giving a student additional time to complete course requirements |
| U  | Unsatisfactory (mid-term grade only)   |
| S  | Satisfactory (mid-term grade only)   |

#### **VI. SPECIAL NOTES**

1. Students with special needs are encouraged to discuss required accommodations in confidence with the instructor, or contact the Special Needs Office.
2. Students should refer to the "Statement of Student Rights and Responsibilities". Students engaging in any form of academic dishonesty will receive a zero grade for that assignment or test and/or other penalty which may apply.
3. The instructor reserves the right to modify the course and course outline as deemed necessary to meet the needs of the students.

#### **VII. PRIOR LEARNING ASSESSMENT:**

Students who wish to apply for advanced credit in the course should consult with the instructor and/or the Prior Learning Assessment Office. Credit for prior learning will be given upon successful completion of a test under the supervision of the instructor or the instructor's representative.