

TOTAL CREDIT HOURS: 7  
PREREQUISITES: ARC 212

I. PHILOSOPHY AND GOALS

This course is designed to develop the student's ability to prepare and detail architectural drawings for a building. The student will be required to prepare a set of architectural drawings for a building. A portion of the course will be designated as self-directed study.

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON.

COURSE OUTLINE

COURSE TITLE: Working Drawings and Detailing

COURSE CODE: ARC 304

PROGRAM: Architectural Technology

SEMESTER: V (Fall)

AUTHOR: B. Sparrow

DATE: 6 May 1993

PREVIOUSLY DATED:

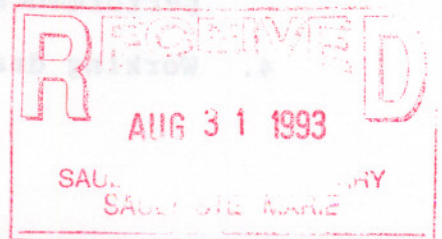
APPROVED:

*D. McCon*  
(DEAN)

DATE:

*M. Chase*  
*aug/93*

93-08-19



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### I. PHILOSOPHY AND GOALS

This course is intended to further develop and refine the drafting and detailing skill of the student, who will be required to prepare selected drawings and details for a building. Preparation of measured drawings, code compliance and fire protection issues will be examined. A portion of the course will be designated as self directed study.

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### II. STUDENT PERFORMANCE OBJECTIVES

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

1. Draw and analyze details given a particular building type and method of construction.
  2. Understand the purpose and procedures of working drawing preparation.
  3. Understand and follow good working drawing practices.
  4. Relate working drawing preparation to specification writing.
  5. Examine construction systems and details to determine code compliance.
  6. Utilize CAD to prepare working drawings.
  7. Measure an existing building and draw plans, elevations and details.
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### III. TOPICS TO BE COVERED

1. Preparing measured and as-built drawings.
2. Guidelines for detail design performance.
3. Analyzing details for vapour movement, air flow, and thermal performance.
4. Working drawing practices and procedures.

5. Working drawing preparation using CAD.
6. Examining details and drawings for code compliance.
7. Understand fire protection and fire rating concepts.

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#### IV. LEARNING ACTIVITIES

##### 1.0 Measured Drawings

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

1.1 Measure an existing building and prepare field notes and sketches.

Sketchbook, Tape Measure

1.2 Properly photograph an existing building for documentation purposes.

Camera

1.3 Prepare base drawings using field notes and measurements.

1.4 Prepare detail drawings of an existing building based on gathered information.

##### 2.0 Detail Design

2.1 Review of rules for detail design for thermal and air flow control.

Architectural Details for Insulated Buildings

2.2 Discuss cost vs. performance issues for assembly detailing.

2.3 Discuss detail design and aesthetic considerations.

2.4 Detailing masonry construction.

2.5 Detailing miscellaneous metal and steel stairs.

2.6 Interior detailing, ceilings, and millwork.

### 3.0 Working Drawings

3.1 Understanding working drawing requirements, referencing and organization.

3.2 Working drawing organization and procedures using CAD.

3.3 Understanding the drawing/specification relationship.

### 4.0 Construction Documents, Laws and Codes.

4.1 Review legal aspects of drawings and specifications.

4.2 Detailing for fire protection, fire separations and fire ratings.

4.3 Given parameters, examine and determine compliance of given details and assemblies.

Ontario Building Code  
Part 3

## 5.0 Renovation and Rehabilitation of Structures

5.1 Discuss types of renovations and distinguish between restoration, rehabilitation.

5.2 Examine special requirements for working drawings related to renovation projects.

5.3 Code compliance and equivalency issues relating to renovation. Ontario Building Code Part 11

## V. METHOD OF EVALUATION

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

Detail Assignments	50%
Measured Drawing Assignment	30%
Case Study Assignment	10%
Attendance	<u>10%</u>
TOTAL	100%

Late assignments will be penalized 10% for each day late. Successfully completed assignments more than 4 days late will receive a 'C' (55) grade. Attendance and punctuality will be considered in the student assessment.

A final letter grade will be assigned as follows:

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

## VI. REQUIRED STUDENT RESOURCES

### Architectural Details for Insulated Buildings

Ronald Brand  
Van Nostrand Reinhold

### Architectural Drafting Equipment

In addition to those materials provided in the kit, the student will be expected to supply various other media and materials necessary to complete the assignments and projects.

## VII. ADDITIONAL RESOURCES AND MATERIALS

### Architectural Graphic Standards

Ramsey/Sleeper  
Latest Edition  
John Wiley & Sons

Architecture and Progressive Architecture periodicals available in library.

There are available in the library a number of texts and periodicals on detailing, working drawings and construction.

## VIII. SPECIAL NOTES

1. Students with special needs are encouraged to discuss required accommodations in confidence with the instructor.
2. The instructor reserves the right to modify the course and course outline as deemed necessary to meet the needs of the students.