

VIII. 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.
 3. Students are expected to conduct themselves in a professional manner, as would be the case in a studio or office environment. Use of obscenities, playing of loud music, or inappropriate behaviour will not be tolerated in the lab or studio.
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IX. COURSE ANALYSIS SHEET

A course analysis sheet will be provide on request.

VII. REQUIRED STUDENT RESOURCES

Architecture: Design Engineering Drawing
William P. Spence
Glencoe

Architectural Graphics
Second Edition
Francis Ching
Van Nostrand Reinhold

Manual on Metric Building Drawing Practice
National Research Council of Canada

Canadian Wood Construction
Canadian Wood Council
Selected Brochures

A Graphic Vocabulary for Architectural Presentation
Edward T. White
Architectural Media Ltd.
(Reference)

Architectural Drafting Equipment Kit

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.

VIII. ADDITIONAL RESOURCES AND MATERIALS

There are available in the library a number of texts and periodicals on design, drafting and construction.

V. METHOD OF EVALUATION

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

Major Assignment	
Unit Design/Presentation	10%
Building Design/Presentation	15%
Perspective	10%
Working Drawings	20%
Drafting Assignments and Tests	35%
Attendance	10%
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TOTAL	100%

Late assignments will be penalized. **Assignments more than one week late will not be accepted.** 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 (Outcomes have not been met)

VI. PRIOR LEARNING ASSESSMENT

Students who wish to apply for advanced standing in the course should consult with the instructor. Credit for prior learning will be given upon completion of the following:

1. Successful review of a portfolio of the student's work, including examples of multiple family residential design and working drawings.

4.3 Apply shade and shadow to a two point perspective.

4.4 Construct and render a two point perspective of a multi-unit residential building.

5.0 Brick Veneer / Wood Frame Construction

5.1 Understand the concept of brick veneer.

5.2 Prepare and draw construction details for brick veneer assemblies.

5.3 Prepare and draw construction details for multi-storey wood frame assemblies

5.4 Prepare a partial set of working drawings for a multi-storey wood frame, brick veneer building, including plans, site plan, building sections and elevations as well as wall sections.

5.5 Prepare drawings manually as well as using CAD

6.0 Fire Rated Assemblies and Fire Separations

6.1 Define a fire rated assembly and fire separation.

6.2 Prepare and draw details of fire rated floor and wall assemblies for a multi-storey wood frame building.

6.3 Understand and draw details of STC rated assemblies for a multi-storey wood frame building.

7.0 Sun Shading Devices

7.1 Understand and read a solar chart.

7.2 Construct true shadows of objects given time of day, direction, and latitude.

7.3 Design an appropriate sun shading device for a window opening.

8.0 CAD for Architectural Drawings

8.1 Use AutoCad to draw wood frame assemblies

8.2 Use AutoCad to draw plans and elevations

3. Multiple unit residential design
 4. Advanced presentation drawings in pencil
 5. Drawing two point perspectives
 6. Drawing perspectives for presentation
 7. Detailing brick veneer over wood frame construction
 8. Detailing multi-storey wood frame construction, including fire rated assemblies and fire separations
 9. Design of sun shading devices
 10. Design of multiple unit residential buildings
 11. Using CAD for architectural presentations
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IV. LEARNING ACTIVITIES

1.0 Design of Suites in Multiple Unit Residential Buildings

- 1.1 Design a one and two bedroom apartment unit.
- 1.2 Prepare a colour presentation of a residential unit design.

2.0 Site Planning and Landscape Design

- 2.1 Develop a site plan for a multi-unit residential building.
- 2.2 Understand principles of landscape design and impact on environmental quality.
- 2.3 Prepare a colour presentation of a residential site plan.

3.0 Multiple Unit Residential Design and Construction

- 3.1 Develop and draw floor plans for a multi-unit residential building.
- 3.2 Develop and draw building sections and elevations for a multi-unit residential building.
- 3.3 Prepare presentation drawings including site and floor plans, section and elevations (using pencil on vellum) for a multi-unit/multi-storey building.
- 3.4 Check compliance of a multi-unit residential design with Part 9 of the Ontario Building Code.

4.0 Drawing and Rendering Two Point Perspectives

- 4.1 Identify one and two point perspectives.
- 4.2 Construct and draw a two point perspective.

TOTAL CREDIT HOURS: 6
PREREQUISITES: ARC 111

I. PHILOSOPHY AND GOALS

This course provides the student with an introduction to advanced wood frame design and construction. The student will refine skills in drawing and drafting introduced in ARC 111, by completing design, presentation and working drawings for a multiple family residential building.

II. STUDENT PERFORMANCE OBJECTIVES (OUTCOMES)

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

1. Design a multiple unit, wood frame residential building.
 2. Understand and draw details for residential wood frame construction, including masonry veneer.
 3. Draw presentation plans, sections and elevations of a residential wood frame building using pencil.
 4. Understand and apply principles and practices of residential site planning.
 5. Prepare a partial set of working drawings for a multiple family wood frame building.
 6. Draw and render a two point perspective using pencil on vellum.
 7. Use the Ontario Building Code to check design compliance with Part 9.
 8. Prepare a presentation drawing using ink and coloured pencil.
 9. Identify and draw details for brick veneer used with wood frame construction.
 10. Construct shadows for objects using solar charts.
 11. Design a sun shading device given solar data and parameters.
 13. Develop model construction techniques using cardboard.
 14. Prepare architectural design and working drawings using CAD
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III. TOPICS TO BE COVERED

1. Site planning for residential development
2. Landscape and environmental quality

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON.

COURSE OUTLINE

COURSE TITLE: Drafting and Design
COURSE CODE: ARC 113
PROGRAM: Architectural Technology
SEMESTER: II (Winter)
AUTHOR: B. Sparrow B1165
phone: 759-2554 X 585
e-mail: barrys@cis.saultc.on.ca
DATE: 5 January 1995
PREVIOUSLY DATED: 4 January 1993

APPROVED: _____
(COORDINATOR)

DATE: _____

APPROVED: LP Croquette
(DEAN)

DATE: 95-01-04

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