

**OAKTON COMMUNITY COLLEGE
GENERIC COURSE SYLLABUS**

<u>I. Course Prefix</u>	<u>Course Number</u>	<u>Course Name</u>	<u>Credit:</u>	<u>Lecture:</u>	<u>Lab:</u>
FME	107	Blueprint Reading for Building Trades	4	3	2

II. Prerequisite: None.

III. Course (Catalog) Description:

Course concentrates on language of architectural construction documents. Content includes visualization; sections, details and schedules; structural drawings; specifications and building codes; heating, ventilation, air conditioning systems; plumbing systems; electrical systems; free-hand mechanical sketchings (board and on-site) and verbal and written communication. Fee \$20

IV. Learning Objectives:

The course will be in parts, focusing on the interpretation of construction documents for residential and commercial type structures.

Specifically, the material to be covered will include:

1. Language of architectural construction documents;
2. Visualization: developing a three-dimensional mental image of a two dimensional drawing;
3. Floor plans, building sections, details and schedules;
4. Structural drawings;
5. Specifications and building codes;
6. Heating, ventilation, air-conditioning systems;
7. Plumbing systems;
8. Electrical systems;
9. Free-hand and mechanical sketches (board and on-site); and
10. Verbal and written communication.

Upon satisfactory completion of the course, the student will be able to: 1) Interpret the graphic language of the architectural drawings, including the meaning of commonly used specifications; 2) Interpret the information contained in building codes and manufacturer's literature; 3) Make freehand and mechanical sketches; 4) List the general and specific information found on each drawing within a set of blueprints.

V. Academic Integrity:

Students and employees at Oakton Community College are required to demonstrate academic integrity and follow Oakton's Code of Academic Conduct. This code prohibits:

- cheating
- plagiarism (turning in work not written by you, or lacking proper citation)
- falsification and fabrication (lying or distorting the truth)
- helping others to cheat
- unauthorized changes on official documents
- pretending to be someone else or having someone else pretend to be you

- making or accepting bribes, special favors, or threats, and
- any other behavior that violates academic integrity.

There are serious consequences to violations of the academic integrity policy. Oakton's policies and procedures provide students a fair hearing if a complaint is made against you. If you are found to have violated the policy, the minimum penalty is failure on the assignment and, a disciplinary record will be established and kept on file in the office of the Vice President for Student Affairs for a period of 3 years.

Details of the Code of Academic Conduct can be found in the Student Handbook.

VI. Outline of Topics:

1. Working Drawings and Blueprints
 - 1.1 Working Drawings
 - 1.2 How Blueprints are Made
2. Reading Drawings
 - 2.1 Pictorial Drawings
 - 2.2 Perspective Drawings
 - 2.3 Isometric Drawings
 - 2.4 Oblique Drawings
 - 2.5 Three View Drawings (Orthographic Projection)
3. Reading Elevation Drawings
 - 3.1 Information to be Found on Elevation Drawings
 - 3.2 Design of Building
 - 3.3 The Roof
 - 3.4 Dimensions
 - 3.5 Exterior Finish
 - 3.6 Trim and Miscellaneous Details
4. Reading Floor Plans
 - 4.1 Importance and Basic Ideas in Reading Floor Plans
 - 4.2 One Story House
 - 4.3 Two Story House
 - 4.4 One-and-One-Half Story House
5. Symbols and Notations Used on Floor Plans
 - 5.1 Material and Building Parts
 - 5.2 Abbreviations
6. Scaling and Dimensioning Practices
 - 6.1 Drawing to Scale
 - 6.2 The Architect's Scale
 - 6.3 Reading a Scale

- 6.4 Using Folding Rule to Draw to Scale and to Read Dimensions
- 6.5 Drawing Symbols and Conventions to Scale
- 6.6 Dimensioning Standards
- 6.7 Exterior Walls
- 6.8 Interior Partitions
- 6.9 Dimensioning Methods
- 6.10 Windows and Doors

- 7. Reading Blueprints for Structural Information
 - 7.1 Finding Structural Information on Blueprints
 - 7.2 Construction Types
 - 7.3 Platform or Western Framing
 - 7.4 Balloon Framing
 - 7.5 Plank and Beam Framing
 - 7.6 Brick Veneer Construction
 - 7.7 Masonry Buildings
 - 7.8 Building Using Unit Construction
 - 7.9 Prefabricated Houses

- 8. Reading Detail Drawings
 - 8.1 The Scale Used for Details
 - 8.2 Dimensions
 - 8.3 Locating the Detail
 - 8.4 Details of Interior Wall Elevations
 - 8.5 Details of the Structure
 - 8.6 Window and Door Details
 - 8.7 Details of Exterior and Interior Trim

- 9. The Plot Plan
 - 9.1 The Survey Plat
 - 9.2 Scales Used by the Surveyor
 - 9.3 Elevations
 - 9.4 Contour Lines
 - 9.5 The Plot Plan

VII. Methods of Instruction:

Course material be presented during each class lecture. Visual aids and handouts will be used when applicable. Methods involving class participation will be employed.

VIII. Course Practices Required:

Quizzes and Exams: Quizzes and exams, when scheduled, will be administered at the beginning of the class, prior to lectures and immediately following submittal of homework assignment.. Makeup exams and quizzes will be administered in the testing center on the student's time. Students have one week to successfully complete the makeup exam/quiz, before grade defaults to a failure with a score of 1 points.

Textbooks: Students are required to bring the appropriate text and accompanying materials to each class session.

Homework: Reading assignments and lab assignments will be required to be completed outside of class. Lab assignments are to be handed in at the beginning of the class.

IX. Instructional Materials:

- 1) *Building Trades Print Reading - Part 1, Residential Construction*, by Elmer W. Sundberg, American Technical Publishers.
- 2) *Building Trades Print Reading - Part 3, General Construction*, by Elmer W. Sundberg, American Technical Publishers.

Text books are available at the OCC Bookstore, Des Plaines campus.

X. Method of Evaluating Student Progress:

The grading scale for all QUIZZES is as follows:

- A = 4 points
- B = 3 points
- C = 2 points
- D = 1 point
- F = 0 points

The grading scale for all EXAMS is as follows:

- A = 20 points
- B = 15 points
- C = 10 points
- D = 5 points

XI. Other Course Information:

Attendance: Attendance will be taken during each class. Students overall grade will be jeopardized when missing more than 3 class sessions, regardless of performance.

Illness: Students unable to attend classes due to illness will be marked absent. Any student knowingly or unknowingly missing classes due to hospitalization must notify the instructor prior to return to class.

No makeup quizzes or tests will be given except for cases of extreme illness and with the consent of the instructor. Attendance is required.

If you have a documented learning, psychological, or physical disability you may be entitled to reasonable academic accommodations or services. To request accommodations or services, contact the ASSIST office in Instructional Support Services. All students are expected to fulfill essential course requirements. The College will not waive any essential skill or requirement of a course or degree program

Effective beginning term Fall 2005 **Ending term** _____

Syllabus prepared by: Chad Ganger **Date:** 12/05

Reviewed by Dept/Program Chair: Chad Ganger **Date:** 12/05

Approved by Dean: R. Sompolski **Date:** 12/05

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