

COURSE OUTLINE

Architecture 108
Architectural Print Reading

I. Catalog Statement

Architecture 108 covers all aspects of architectural print reading including orthographic projection, basic view utilization, residential and commercial standards, dimensioning techniques, uniform building code (UBC), and architectural terminology including abbreviations and symbols.

Total Lecture Units: 3.0

Total Course Units: 3.0

Total Lecture Hours: 48.0

Total Faculty Contact Hours: 48.0

Prerequisite: None.

Note: ARCH 108 may not be taken for credit by students who have credit for ARCH 101, 102, 103, 105, or 107.

II. Course Entry Expectations

Skills Level Ranges: Reading 3; Writing 3; Listening/Speaking 3; Math 3.

Prior to enrolling in the course, the student should be able to:

1. understand concepts related to the field of architectural print reading;
2. respond to verbal and written questions about course topics.

III. Course Exit Standards

Upon successful completion of the required coursework, the student should be able to:

1. understand aspects of different types of projections;
2. identify the parts of a residential and commercial structure;
3. understand the basics of residential and commercial building construction;
4. identify portions of an architectural residential and commercial plan;
5. understand the various types of architectural documentation techniques.

IV. Course Content

Total Faculty Contact Hours = 48

- A. Orthographic Projection
1. Plan and elevation views

6 hours

2. Sectional and detail views
3. View utilization and placement
- B. Dimensional Techniques 6 hours
 1. Scale reading
 2. Architectural symbols
 3. Architectural printing
 4. Architectural notes
 5. Bills of material
 6. Standard architectural callouts
- C. Residential Plan Reading 18 hours
 1. Floor plans
 2. Site/plot plans
 3. Framing plans
 4. Detailing
 5. Use of Schedules
 6. Electrical plans
 7. Plumbing plans
 8. Heating and air conditioning
 9. Energy conservation
 10. Uniform Building Code
- D. Commercial Plan Reading 18 hours
 1. Heavy timber construction
 2. Masonry construction
 3. Reinforced concrete construction
 4. Structural steel construction
 5. Fire protection
 6. Metal and wood trusses

V. Methods of Instruction

The following methods of instruction may be used in the course:

1. lecture;
2. multimedia;
3. guest speakers;
4. field trips.

VI. Out of Class Assignments

The following out of class assignments may be used in the course:

1. individual projects (i.e. written assignments, reading reports);
2. group projects (i.e. homework problems, problem solving demonstrations, discussion on textbook topics).

VII. Methods of Evaluation

The following methods of evaluation may be used in the course:

1. weekly exercises. (eg. typically questions will be provided from the textbook exercises);
2. midterm examination;
3. final examination and performance test. (eg. typically questions will be taken from a residential and commercial set of drawings.)

VIII. Textbooks

Weidhaas, E. *Reading Architectural Plans for Residential and Commercial Construction*, [Current Edition]. New York: Prentice Hall, 2013.

10th Grade Textbook Reading Level. ISBN: 978-0131433908

IX. Student Learning Outcomes

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

1. describe the different types of projections and how they are shown on a drawing;
2. be able to identify the various parts of a residential and commercial structure;
3. describe the basic principles, methods and materials used for residential and commercial building construction;
4. be able to identify components and parts of architectural residential and commercial working drawings.