CNST A189: BLUEPRINT READING

Item	Value
Curriculum Committee Approval Date	12/02/2020
Top Code	095200 - Construction Crafts Technology
Units	1.5 Total Units
Hours	27 Total Hours (Lecture Hours 27)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

Develop blueprint reading skills in all aspects of residential construction to acquire realistic understanding of prints and sketches as a means of communication in construction. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Interpret different types of construction documents for new construction a remodel on a residential dwelling.

Course Objectives

- 1. Explain blueprints; correctly interpret lines, symbols, figures and notations.
- 2. Recognize dimensions and symbols for drawings.
- 3. Use scaling and dimensions drawings practices in interpreting plans.
- 4. Explain basic plan views, elevations views, section views, and reference lines.
- 5. Explain the functions of footings and foundations.
- 6. Identify the basic parts in frame construction and explain the functions of the elements of the building detail.
- 7. Identify the most common types of roofs used on residential construction and explain the function of the roof members
- 8. Identify the basic parts in a staircase used on residential construction.

Lecture Content

I. The different types of construction drawings 1. The difference between Pictorial and Orthographic drawings 2. The persons involved in the creation of construction documents II. The different types of lines and what these lines may represent 1. The triangular architect s scale 2. The proper use of the architect s scales 3. The use of symbols and abbreviations instead of drawing the actual item III. The components of two types of foundations found in residential construction 1. The application of the building code to the foundation 2. The components of the framing plan 3. The application of the building code to the framing plan IV. Discuss the components of the floor plan 1. Relate the importance of the building code to the floor plan V. The components of the ceiling plan 1. The application of the building code to the ceiling plan 2. The components of the roof plan 3. The application of the building code to the roof plan VI. The importance of the written words known as specification sheet VII. The symbols for the electrical plan VIII. Overview of the plumbing, heating, ventilation, and air-conditioning of a project 1. The symbols for the heating, ventilation, and air-conditioning of a project IX. Identifying the different types of roofs

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)

Instructional Techniques

Instructional methodologies will include, but not necessarily be restricted to, the following: 1. Detailed multimedia/ lectures of each topic covered. 2. Student feedback during each lecture. 3. Detailed illustrative discussion of lecture handout and textbook information. 4. Building plan reading

Reading Assignments

Students have a weekly reading assignment which include studying building codes, plan reading and construction procedure - approximately 2 hours per week.

Writing Assignments

Students will turn is a summary of sets of plans which include: scope of work and summaries of trades involved- approximately 2 hours per week.

Out-of-class Assignments

Students are assigned a weekly print reading assignment to do out of class - approximately 2 hours per week.

Demonstration of Critical Thinking

Students will be given various types of written tests for their evaluation in this course during this semester. These will include identification, multiplechoice, true and false, and mathematical calculations.

Required Writing, Problem Solving, Skills Demonstration

Preparation of documents from information on blueprints.

Eligible Disciplines

Construction technology: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required DelPico, Wayne, J.. Bluerpint reading material takeoff, ed. R.S. Means, 2014