

BUTTE COLLEGE

COURSE OUTLINE

I. CATALOG DESCRIPTION

FSC 10 - Building Construction for Fire Protection

3 Unit(s)

Prerequisite(s): NONE

Recommended Prep: NONE

Transfer Status: CSU

51 hours Lecture

This course is a study of the components of building construction as they relate to fire safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, pre planning operations, and operating at fires. The course will include a review of the development and evolution of building and fire codes and the relationship to past residential, commercial and industrial fires.

II. OBJECTIVES

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

- A. Recognize basic types of building construction, explain construction requirements, describe the importance of design and identify the implication for fire protection.
- B. Identify the government agencies and the various codes of statutory law that relate to fire protection.
- C. Describe fire inspection practices that are applicable to different types of building construction.
- D. Identify fire fighting systems, practices and procedures that have developed for different types of construction.

III. COURSE CONTENT

A. Unit Titles/Suggested Time Schedule

Lecture	
<u>Topics</u>	<u>Hours</u>
1. Introduction	1.00
2. Principles of Construction	8.00
3. Building Construction	8.00
4. Principles of Fire Resistance	6.00
5. Fire Behavior vs. Building Construction	8.00
6. Ordinary Construction	4.00
7. Wood Construction	4.00
8. Steel Construction	4.00
9. Concrete Construction	4.00
10. High Rise Construction	4.00
Total Hours	51.00

IV. METHODS OF INSTRUCTION

A. Lecture

B. Field Trips

C. Homework: Students are required to complete two hours of outside-of-class homework for each

- hour of lecture
- D. Discussion
- E. Multimedia Presentations
- F. Handouts

V. METHODS OF EVALUATION

- A. Exams/Tests
- B. Quizzes
- C. Projects
- D. Participation in field trips.

VI. EXAMPLES OF ASSIGNMENTS

- A. Reading Assignments
 - 1. Read the textbook chapter on pre-planning fire responses, and be prepared to take a quiz on the material covered.
 - 2. Locate and read an article in "Firefighter Close Calls" related to an accident that was caused by building structure failure
- B. Writing Assignments
 - 1. Write a minimum one page report describing an incident where an accident occurred because of building structure failure.
 - 2. Participate in a short essay exam based upon a cumulation of material covered in class.
- C. Out-of-Class Assignments
 - 1. Conduct a scavenger hunt, and locate 100 instructor assigned building construction features on buildings in your community.
 - 2. Prepare a Powerpoint presentation which gives an overview of building design features.

VII. RECOMMENDED MATERIALS OF INSTRUCTION

Textbooks:

- A. IFSTA. Building Construction Related to the Fire Service. 3rd Edition. IFSTA, 2010.
- B. IFSTA. Fire Inspection and Code Enforcement. 7th Edition. IFSTA, 2009.
- C. IFSTA. Fire Inspection and Code Equipment Study Guide. 7th Edition. IFSTA, 2009.

Materials Other Than Textbooks:

- A. Handouts
- B. Audiovisual

Created/Revised by: Michael Maloney
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