

Lassen Community College Course Outline

FS 6 Building Construction for Fire Protection

3.0 Units

I. Catalog Description

This course provides for the study of the components of building construction that relate to fire safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations and operating at fires. The development and evolution of building and fire codes will be studied in relationship to past fires in residential, commercial, and industrial occupancies. This course has been approved for hybrid and correspondence delivery.

Recommended Preparation: Successful completion of ENGL105 or equivalent multiple measures placement.

Transfers to CSU

51 Hours Lecture, 102 expected outside of class hours, 153 Total Hours of Instruction

Scheduled: Fall (even)

II. Coding Information

Repeatability: Not Repeatable

Grading Option: Graded

Credit Type: Credit - Degree Applicable

TOP Code: 2133.00

III. Course Objectives

A. Course Student Learning Outcomes

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

- 1) Define occupancy designations of the building code.
- 2) Name the construction classifications that correspond to designated occupancies.
- 3) Differentiate between the loads that are placed on a building and describe each type of load.

B. Course Objectives

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

1. Define occupancy designations of the building code.
2. Name the construction classifications that correspond to designated occupancies.
3. Differentiate between the loads that are placed on a building and describe each type of load.
4. List and compare the structural members on various types of construction.
5. Define flame spread, its hazards, contributing factors and possible solutions.
6. Demonstrate fire inspection practices that are applicable to individual buildings.
7. Identify firefighting practices and procedures that have developed for different types of construction.

IV. Course Content

1. History of Building Construction
2. Governmental Functions, Building and Fire Codes
3. Fire Risks and Fire Protection
4. Fire Loss Management and Life Safety
5. Pre-fire Planning
6. Fire Suppression Strategies
7. Principles of Construction
 - a. Terminology
 - b. Building and Occupancy Classifications

V. Assignments

A. Appropriate Readings

Assignments in the textbook and research

B. Writing Assignments

Research papers on residential, commercial, industrial, and school occupancy designations and fire inspection practices applicable to each.

C. Expected Outside Assignments

Research on fire protection in both commercial and residential properties, studying text and other materials available on building construction for fire protection.

D. Specific Assignments that Demonstrate Critical Thinking

Evaluation of specific building plans for fire code compliance.

VI. Methods of Evaluation

Traditional Classroom Evaluation

Mixed format exams and research papers

Correspondence Evaluation

Same as traditional classroom with the exception of the desired use of proctored exams. Students will be expected to complete assignments and activities equivalent to traditional classroom assignments and activities. Written correspondence and a minimum of six opportunities for feedback will be utilized to maintain effective communication between instructor and student.

Hybrid Evaluation

A combination of traditional classroom and online evaluations will be used. Traditional Classroom: exercises/assignments, mixed format exams and research papers. Online: exercises/assignments, online quizzes and exams, essay forum postings, and chat rooms.

VII. Methods of Delivery

Check those delivery methods for which, this course has been separately approved by the Curriculum/Academic Standards Committee.

Traditional Classroom Delivery Correspondence Delivery

Hybrid Delivery

Online Delivery

Traditional Classroom Delivery

Lecture, Demonstration, Discussion

Correspondence Delivery

Assigned readings, instructor-generated typed handouts, lecture materials, exercises and assignments equal to traditional classroom delivery. Written correspondence and a minimum of six opportunities for feedback will be utilized to maintain communication between student and instructor.

Hybrid Delivery

A combination of traditional classroom and online instruction will be utilized. 26 hours will be taught through traditional classroom delivery by the instructor and the other 25 hours will be instructed online through the technology platform adopted by the District. Traditional class instruction will consist of lecture, demonstration, and discussion. Online delivery will consist of online written lectures, forum-based discussions, exercises/assignments contained on website, adding extra resources and other media sources as appropriate.

VIII. Representative Texts and Supplies

Corbett; Brannigan; *Brannigan's Building Construction for the Fire Service*, 6th Edition, 2021, Jones & Bartlett Learning, ISBN: 9781284177312

IX. Discipline/s Assignment

Fire Technology

X. Course Status

Current Status: Active

Original Approval Date: May 21, 1996

Revised By: Dan Weaver

Curriculum/Academic Standards Committee Revision Date: 09/20/2022