

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 meets the National Fire Academy, Fire and Emergency Services Higher Education (FESHE) curriculum model for Building Construction for Fire Prevention. This course has been approved for hybrid and correspondence delivery.

Diversity Statement

Our commitment to diversity requires that we strive to eliminate barriers to equity and that we act deliberately to create a safe and inclusive environment where individual and group differences are valued and leveraged for the growth and understanding as an educational community.

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

Additional Course Information:

Transfer Status: Transfers to CSU

Total Number of Hours by Instructional Method: 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

- A. History of Building Construction
- B. Governmental Functions, Building and Fire Codes
- C. Fire Risks and Fire Protection
- D. Fire Loss Management and Life Safety
- E. Pre-fire Planning
- F. Fire Suppression Strategies
- G. Principles of Construction
 1. Terminology
 2. 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. Students will be required to complete two hours of outside-of-class homework for each hour of lecture.
- D. Specific Assignments that Demonstrate Critical Thinking
Evaluation of specific building plans for fire code compliance.

VI. Methods of Evaluation

Traditional Evaluation

Term paper (topic choice, thesis statement, outline, bibliography, rough draft, final draft), homework, classroom discussion, essay, journals, lab demonstrations and activities, multiple choice quizzes, and participation.

Correspondence Evaluation

Same as face to face with the exception of the desired use of proctored exams and exclusion of participation in classroom activities. Students will be expected to complete assignments and activities equivalent to in-class 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

Quizzes and exams could be administered in person and/ or online. Students will be

expected to complete online assignments and activities equivalent to in class assignments and activities for the online portion of the course. Electronic communication, both synchronous and asynchronous (chat/forum) will be evaluated for participation and to maintain effective communication between instructor and students.

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, discussion, audio/visual aids, demonstration, group exercises, guest speakers, lab, individualized programs and other as needed.

Correspondence Delivery

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

Hybrid Delivery

A combination of traditional classroom and online instruction will be utilized. Each semester a minimum of 17 hours, or 1/3 of the instruction hours, will be taught face-to face by the instructor and the remaining hours will be instructed online through the technology platform adopted by the District. Traditional class instruction could consist of exercises/assignments, lectures, visual aids, practice exercises, exams and quizzes. Online delivery could consist of exercises/assignments, lecture posts, discussions, exams and quizzes, 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. **Course Status**

1. Current Status: Active
2. Original Approval Date: May 21, 1996
3. Course Originator:
4. Board Approval Date:
5. Chancellor's Office Approval Date:
6. Revised by: Dan Weaver
7. Curriculum/Academic Standards Committee Revision Date: 05/07/2024