Las Positas College
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Course Outline for FST 55

FIRE PROTECTION EQUIPT AND SYS

Effective: Fall

I. CATALOG DESCRIPTION:
FST 55 — FIRE PROTECTION EQUIPT AND SYS — 3.00 units

History and development of the Uniform Fire Code; features, design, and operations of fire alarm systems and smoke detection systems; means and adequacy of required exiting systems. Installation and maintenance of automatic, manual, and other private fire-extinguishing equipment, heat and smoke control systems, water or sprinkler supply, water supply for fire protection and portable fire extinguishers.

3.00 Units Lecture

Grading Methods:
Letter Grade

Discipline:

	MIN
Lecture Hours:	54.00
Total Hours:	54.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

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

A. Describe organizations that provide information or service to fire protection systems;
B. Describe the requirements and distribution of standpipe systems;
C. Distinguish between types of standpipe systems and water supply requirements;
D. List types, components, and operations of automatic sprinklers;
E. Compare detection and alarm control devices and systems;
F. Explain the history of the Uniform Fire Code and related standards;
G. Describe how the use of the Fire Code promotes consistency in the regulatory environment;
H. Compare smoke and fire movement in various types of construction and the relationship to systems and equipment;
I. Define types, classifications and effectiveness ratings of fire extinguishers;
J. List types, components and operations of fire protection system and equipment for special hazards;
K. Explain the application of hydraulic theory for fire protection.

V. CONTENT:
A. Characteristics of protection systems for special hazards
B. Effect of codes on building design and construction
    1. Requirements and distribution of standpipe systems
    2. Types of standpipe systems and water supply requirements
    3. Types, components, and operations of automatic sprinklers
    4. Detection and alarm control devices and systems
    5. Smoke and fire movement in various types of construction and the relationships to systems and equipment
    6. Types, classifications and effectiveness ratings of fire extinguishers
C. Evolution of the Uniform Fire Code and Standards
D. Analysis of the requirements in the Uniform Fire Code
    1. Use of Fire Code to promote consistency in regulatory environment
E. Organizations that provide information or service to fire protection systems

VI. METHODS OF INSTRUCTION:
A. **Lecture** -
B. Chalkboard
C. **Field Trips** -
D. Slide projection
E. Video presentations
F. **Discussion** -

VII. TYPICAL ASSIGNMENTS:
A. Students in a group will list a type component and operation of a specific sprinkler system B. Student will present a

typical fire prevention organization in a city of 200,000 C. Essay demonstrating knowledge of a standpipe system D. Reading assignments 1. Sample assignment: Read Chapter 2, pages 68-88

VIII. EVALUATION:

A. **Methods**

1. Exams/Tests
2. Quizzes
3. Research Projects
4. Papers
5. Other:

B. **Frequency**

IX. TYPICAL TEXTS:

1. Robert *Design of Special Hazard and Fire.* Latest ed., Delmar Publisher, Private Fire Protection & Detection IFSTA, 0.
2. - *Uniform Fire Code.* Latest ed., International Fire Code Institute, 0.
3. - *Inspectors Guide (Fire Prevention Officers Section).* Latest ed., California Fire Chiefs Association, 0.

X. OTHER MATERIALS REQUIRED OF STUDENTS: