FIRE 73 Course Outline as of Spring 2013

CATALOG INFORMATION

Dept and Nbr: FIRE 73 Title: FIRE PREVENTION TECH.
Full Title: Fire Prevention Technology
Last Reviewed: 8/26/2024

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	17.5	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	FIRE 52

Catalog Description:
This is a state mandated course that provides the fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationship of fire prevention to fire safety education and detection and suppression systems. There is a minimum of one site visit required for both classroom and online offering.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Schedule of Classes Information:
Description: This is a state mandated course that provides the fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationship of fire prevention to fire safety education and detection and suppression systems. There is a minimum

of one site visit required for both classroom and online offering. (Grade Only)
Prerequisites/Corequisites:
Recommended: Eligibility for ENGL 100 or ESL 100
Limits on Enrollment:
Transfer Credit: CSU;
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**	Effective:	Inactive:
CSU GE:	**Transfer Area**	Effective:	Inactive:
IGETC:	**Transfer Area**	Effective:	Inactive:

CSU Transfer:	Transferable	Effective:	Spring 1989	Inactive:
UC Transfer:		Effective:		Inactive:

CID:

Certificate/Major Applicable:
Both Certificate and Major Applicable

COURSE CONTENT

Outcomes and Objectives:
Upon completion of the course, the student will be able to:
1. Identify significant historical fires and the role they played in promulgating fire safety regulations.
2. Describe the model code process and list the model code organizations.
3. Identify the limits of the right of entry provisions contained in the model fire prevention codes.
4. Explain why warrants must be secured in order to inspect certain buildings.
5. Describe the classification system used by model building codes to group buildings by use and characteristics.
6. Describe fire resistive construction elements.
7. Explain why labeling of certain rated assemblies is mandated by the codes.
8. Identify and describe the components of means of egress.
9. Identify the need to regulate interior finish based on previous fire experiences in the United States.
10. List two strategies for fire safety used by the model fire prevention codes.
11. List the appropriate standards for the maintenance and inspection of sprinklers, standpipes, wet and dry chemical extinguishing systems, and fire alarm systems.
12. Describe ways that the means of egress from a building or space can be compromised.
13. Describe the control area concept of hazardous materials management.
14. Explain the importance of hazardous materials inspections.
15. Describe the system used to classify flammable and combustible liquids.
16. List and describe the three basic categories of explosive materials in commercial use.
17. Identify three assembly occupancies that require special fire protection features.
18. Describe how the provisions of the model fire prevention codes attempt to reduce fire risk at storage facilities, waste materials facilities and lumberyards.

19. List general requirements for storage of all gases.
20. Differentiate between a toxic material and a health hazard material.

Topics and Scope:

I. Fire Prevention Through Regulation
  A. Code administration
  B. Fire Inspections
    1. Legal aspects
    2. Inspection priorities
    3. Warrants
    4. Conducting the inspection
II. The Building Code
  A. Use and occupancy
  B. Building limitations and types of construction
  C. Fire-resistive construction elements
    1. Fire tests
    2. Rated assemblies
  D. Fire protection systems
  E. Means of egress
  F. Interior finish requirements
III. The Fire Prevention Code
  A. Historical perspective
  B. Fire safety provisions
  C. Maintenance of fire protection systems
  D. Means of egress maintenance and fire safety and evacuation planning
  E. Hazardous materials
    1. Code provisions
    2. High hazard buildings
    3. Control areas
    4. Inspections in buildings with hazardous materials
    5. Hazardous production material facilities
  F. Flammable liquids and aerosols
    1. Physical properties
    2. Code provisions
    3. General fire safety requirements
    4. Storage requirements
    5. Service station and garages
    6. Dry cleaning
  G. Detonation and deflagration hazards
    1. Explosive materials
    2. Blasting theory
    3. Fireworks
  H. Hazardous assembly occupancies
    1. Air transportation facilities
    2. Bowling alleys
    3. Tents and air-supported structures
  I. Storage and processing occupancies
    1. Storage facilities
    2. Waste material handling facilities
    3. Lumberyards and woodworking plants
  J. Compressed and cryogenic gases

1. Physical properties of gases
2. Code requirements

K. Pesticides and other health hazards
1. Pesticides defined
2. Toxic materials, irritants, sensitizers, and health hazard materials
3. Notification, warning, and employee training

Assignment:

1. Reading 20-30 pages per week
2. Completion of 17 weekly assignment sheets
3. Quizzes, midterm, and final exam
4. PowerPoint presentation
5. One site visit
6. Term project and/or internet research project

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Written homework, Term project	Writing 20 - 35%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Scenarios	Problem solving 5 - 10%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

PowerPoint presentation	Skill Demonstrations 5 - 10%

Exams: All forms of formal testing, other than skill performance exams.

Quizzes, midterm, final exam	Exams 50 - 70%

Other: Includes any assessment tools that do not logically fit into the above categories.

None	Other Category 0 - 0%

Representative Textbooks and Materials:

Fire Prevention-Inspection and Code Enforcement, D. Diamantes, Thomson/Delmar Learning, 3rd edition
Fire Inspection and Code Enforcement, 7th edition, International Fire Service Training

Association