

# ***COCONINO COMMUNITY COLLEGE***

## ***COURSE OUTLINE***

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Status: Permanent

A. Identification:

1. Subject Area: Fire Science
2. Course Number: FSC 135
3. Course Title: FUNDAMENTALS OF FIRE PREVENTION
4. Credit Hrs: 3
5. Catalog Description:  
Role and functions of fire prevention. Practical rather than theoretical aspects of fire prevention.  
Three lecture.

B. Course Goals:

To provide the student with the basic understanding of the subject of fire prevention as it relates to a firefighter.

C. Course Outcomes:

Students will:

1. Define of the main issues relating to the national fire problem.
2. Recognize the need, responsibilities and importance of fire prevention organizations.
3. Understand the components of an inspection and enforcement steps that are utilized.
4. Recognize the difference between laws, regulations and standards.
5. Understand the main structural components of building construction and their relationship to fire safety.
6. Explore the components and utilization of the various types of fire extinguishment, protection and alarm systems.
7. Understand the basic steps necessary for fire investigation.
8. Demonstrate the components of a fire prevention record and reporting system.

AND

1. Cite the main points relating to the national fire problem.
2. Describe the need, responsibilities and importance of fire prevention organizations.
3. Describe the components of an inspection and the enforcement steps that are utilized.
4. Define governmental divisions of authority relating to fire prevention laws, regulations and standards.
5. Identify the difference between laws, regulations and standards and cite examples of each.
6. Describe the main structural components of building construction and their relationship to fire safety.
7. Describe the components and utilization of the various types of fire extinguishment, protection and alarm systems.
8. Identify the basic steps necessary for the investigation of fires.
9. Identify the major public education activities and their objectives.
10. Describe the components of a fire prevention record and reporting system.

D. Course Content:

Will include:

1. Goals of Fire Prevention Activities
  - a. History of major fires in America
  - b. Importance of fire prevention
  - c. Fire prevention organization
    1. responsibilities
    2. functions
    3. private organizations

- d. Roles of Government
  - 1. federal
  - 2. state
  - 3. local
- e. Inspection and enforcement
  - 1. responsibilities
  - 2. methods
  - 3. objectives
  - 4. permits
  - 5. litigation
- 2. Fire Prevention Laws, Regulations and Standards
  - a. Laws and authority
    - 1. federal
    - 2. state
    - 3. local
  - b. Building codes
  - c. Fire prevention codes
  - d. Zoning ordinances and fire zones
  - e. Technical standards
  - f. Plans review programs
  - g. Fire protection engineering
  - h. Hazard marking systems
- 3. Building Hazards and Protection Systems
  - a. Building construction terms and fire spread
  - b. Occupancy classification
  - c. Types of construction
  - d. Common problems in existing construction
  - e. Interior finish contents hazards
    - 1. flammability
    - 2. other hazards
  - f. Fire sprinkler systems
    - 1. effectiveness
    - 2. types
    - 3. components
    - 4. testing and inspection
  - g. Fire standpipes
    - 1. wet systems
    - 2. dry systems
  - h. Special hazard extinguishing systems
    - 1. portable extinguishers
    - 2. other systems
  - i. Fire alarm and detection systems
    - 1. types
    - 2. functions
    - 3. components
    - 4. installation and testing
- 4. Fire Investigation and Public Education
  - a. Objectives
  - b. Identify the point of origin
  - c. Establishing cause
  - d. Arson and case preparation
  - e. Fire investigation tools
  - f. Investigation reports
  - g. Public education

1. activities
2. special programs
5. Fire Prevention and Records and Reports
  - a. Records and data utilization
  - b. Types of records retained
    1. inspections
    2. violations found and corrected
    3. citations and permits issued
    4. building plans reviewed
    5. investigations and results
    6. public education activities
    7. others
  - c. Retention periods for records
  - d. Utilizing records to support legislation