

J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: FST 100 **Credits:** 3

Course Title: Principles of Emergency Services

Course Description:

Provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; and, introduction to fire strategy and tactics. Lecture 3 hours per week.

General Course Purpose:

Introduces topics related to fire service and topics in the industry of fire protection.

Course Prerequisites and Co-requisites:

None

Student Learning Outcomes:

Upon completion of this course, you will be able to:

1. Illustrate the history of the fire service
 - a. Illustrate and explain the history
 - b. Evaluate the culture of the fire service
 - c. Analyze the basic components of fire as a chemical chain reaction, as well as the major phases of fire
 - d. Examine the main factors that influence fire spread and fire behavior;
2. Compare and contrast the components and development of the fire and emergency services.
 - a. List and describe the major organizations that provide emergency response service, and illustrate how they interrelate
 - b. Explain the scope, purpose and organizational structure of fire and emergency services
 - c. Differentiate between fire service training and education
 - d. Explain the value of higher education to the professionalization of the fire service
 - e. Define the role of national, state and local support organizations in fire and emergency services
 - f. Describe the common types of fire and emergency service facilities, equipment and apparatus
 - g. Compare and contrast effective management concepts for various emergency situations;
3. Analyze careers in fire and emergency services
 - a. Identify fire protection and emergency service careers in both the public and private sector

- b. Explain the primary responsibilities of fire prevention personnel, including code enforcement, public information, and public and private protection systems
- c. Develop the components of career preparation and goal setting
- d. Demonstrate the importance of wellness and fitness as it relates to emergency services

Major Topics to Be Included:

1. Careers in the Fire Protection/Emergency Services
 - a. Opportunities/Private, Industrial, Local, Municipal, State and Federal
 - b. Pay, Hours of Duty, Benefits, Promotion and Retirement Qualifications
 - c. Work Ethics and Human Relations Education and Training
 - i. Certificates
 - ii. Degrees
 - iii. Selection Process
2. History
 - a. Evolution of the Fire Protection
 - b. The U.S. Fire Problem: Life and Property
3. Fire Prevention and Public Fire Education
 - a. Fire Investigation
 - b. Code Enforcement
 - c. Public Education
4. Scientific Terminology
 - a. Fire Behavior
 - b. Flammability and Characteristics of Solids, Liquids and Gases
5. Building Design and Construction
6. Fire Detection and Suppression Systems
7. The Role of Public and Private Support Organizations
 - a. Local
 - b. State
 - c. Federal and National
 - d. International
8. Fire and Emergency Services Equipment and Facilities Management
 - a. Emergency Operations
 - b. Organizational Structure of Fire and Emergency Services

Effective Date/Updated: September 11, 2023