

COURSE OUTLINE

Fire Technology 115
Firefighting Strategy and Tactics
(Previously listed as Fire Technology 104)

I. Catalog Statement

Fire Technology 115 presents the review of fire chemistry, equipment, personnel, basic fire fighting tactics and strategy, methods of attack, pre-planning fire problems. Related codes and ordinances are also reviewed.

Total Lecture Units: 3.0

Total Course Units: 3.0

Total Lecture Hours: 48.0

Total Faculty Contact Hours: 48.0

Prerequisite: Fire Technology 101 or equivalent.

II. Course Entry Expectations

Skills Levels Ranges: Reading 5; Writing 5; Listening/Speaking 5; Math 3.

Prior to enrolling in the course, the student should be able to:

1. describe and discuss the components of the history and philosophy of the modern day fire service;
2. analyze the basic components of fire as a chemical reaction, the major phases of fire, and examine the main factors that influence fire spread and behavior;
3. differentiate between fire service training and education; fire protection certificate program and a fire service degree program; and explain the value of education in the fire service;
4. list and describe the major organizations that provide emergency response service and illustrate how they interrelate;
5. identify fire protection and emergency-service careers in both the public and in the private sector;
6. synthesize the role of national, state and local support organizations in fire protection and emergency services;
7. discuss and describe the scope, purpose, and organizational structure of fire and emergency services;
8. describe the common types of fire and emergency services facilities, equipment, and apparatus;

9. compare and contrast effective management concepts for various emergency situations;
10. identify and explain the components of fire prevention including code enforcement, public information, and public and private fire protection systems.

III. Course Exit Expectations

Upon successful completion of the required coursework, the student should be able to:

1. identify the characteristics and behavior of the fire;
2. size up the situation at the fire scene;
3. develop the plan of operations;
4. assess rescue resources required at scene;
5. identify confinement methods for type of fire situation;
6. identify extinguishment resources available;
7. determine required salvage operation;
8. plan prefire facts to develop plan of action.

IV. Course Content

Total Faculty Contact Hours = 48

A. Introduction	4 hours
1. Characteristics and behavior of fire	
2. Fire hazard properties of ordinary and hazardous materials	
3. Extinguishing agents	
4. Extinguishing equipment	
5. Apparatus	
6. Manpower	
B. Size-up	4 hours
1. Facts	
2. Probabilities	
3. Own Situation	
4. Decision	
5. Plan of operations	
C. Rescue	4 hours
1. Determination of life hazard	
2. Fire situation	
3. Resources available	
4. Operations	
D. Exposures	4 hours
1. Fire situation	
2. Possible fire spread to other buildings	
3. Resource available	
4. Operations	

- E. Confinement 4 hours
 - 1. Fire situation
 - 2. Horizontal extension
 - 3. Vertical extension
 - 4. Downward extension
 - 5. Resources available
 - 6. Operations

- F. Extinguishment 4 hours
 - 1. Fire situation
 - 2. Involved material
 - 3. Resources available
 - 4. Operations

- G. Ventilation 4 hours
 - 1. Fire situation
 - 2. Resources available
 - 3. Operations

- H. Salvage 4 hours
 - 1. Fire situation
 - 2. Salvageable material
 - 3. Resources available
 - 4. Operations during the fire
 - 5. Operations after the fire

- I. Overhaul 4 hours
 - 1. Complete extinguishment
 - 2. Inspection
 - 3. Place fireground in safe condition
 - 4. Preserve evidence of cause or incendiarism

- J. Direct Method of Attack 3 hours
 - 1. Fire situation
 - 2. Available sources
 - 3. Application of extinguishing agent
 - 4. Amount of extinguishing agent

- K. Indirect Method of Attack 3 hours
 - 1. Fire situation
 - 2. Resources available
 - 3. Application of extinguishing agent
 - 4. Amount of extinguishing agent

- L. Prefire Planning 3 hours
 - 1. Gathering the facts

2. Reporting the facts
3. Analysis and evaluation
4. Plan of action

M. Fundamental Fire Problems

3 hours

1. Structure fires
2. Grass or brush fires
3. Chemical fires
4. Transportation
5. Miscellaneous

V. Methods of Instruction

The following methods of instruction may be used in the course:

1. lecture;
2. demonstration;
3. films;
4. simulations.

VI. Out of Class Assignments

The following out of class assignments may be used in the course:

1. individual projects (i.e. written assignment, reading reports);
2. group projects (i.e. Homework problems, problem solving demonstrations, discussion on textbook topics).

VII. Methods of Evaluation

The following methods of evaluation may be used in the course:

1. quizzes;
2. midterm examination;
3. final examination.

VIII. Textbooks

Cote, Arthur E., Fire Protection Handbook [20th Edition]. National Fire Protection Association, 2008.

10th Grade Textbook Reading Level. ISBN: 0877657580

IX. Student Learning Outcomes

1. Student will be able to identify the characteristics and behavior of the fire.
2. Student will be able to size up situation at fire scene.
3. Student will be able to develop the plan of operations.
4. Student will be able to assess rescue resources required at scene.
5. Student will be able to identify confinement methods for type of fire situation.

6. Student will be able to identify extinguishment resources available.
7. Student will be able to determine required salvage operation.
8. Student will be able to plan prefire facts to develop plan of action.