## FRS 103

# Firefighters Basic Skills II

## 45 clock hours 3 credit hours

Course	Title	Lectu	re/Skill	Total	Fractional Credit
FRS 1031	Building Construction	10	0	10	0.6
FRS 1032	Wildland Fire Suppression Operation	ons 6	2	8	0.5
FRS 1033	Fire Control	15	6	21	1.4
FRS 1034	Ventilation	5	1	6	0.5

## BUILDING CONSTRUCTION

Lecture Skill Fractional Credit

10 0 0.6

#### **Course Description**

This course is designed to improve the ability of students to assess building stability and resistance to fire. This will aid students in protecting the lives of firefighters and community residents, while improving operational effectiveness through more complete and accurate "size-ups". As our resources and experience are matched with those brought to the classroom by both students and instructors, each course delivery will fulfill in part the Academy's mission—to upgrade the skills of our nation's fire service.

Prerequisites:

**Corequisite:** 

	Task List		
1.	Describe the basic structural characteristics of the following types of building construction:		
	a. Wood frame		
	b. Ordinary		
	c. Heavy timber		
	d. Non-combustible		
	e. Fire resistant		
2.	Identify the general fire behavior expected with each type of building construction, including the spread of fire		
	and the safety of the building, occupants, and firefighters.		
3.	Describe at least 3 hazards associated with truss and lightweight construction.		
4.	Identify dangerous building conditions created by fire and fire suppression activities.		
5.	Identify 5 indicators of building collapse.		
6.	Describe the effects of fire and fire suppression activities on the following building materials:		
	a. Wood		
	b. Masonry (brick, block, stone)		
	c. Cast iron		
	d. Steel		
	e. Reinforced concrete		
	f. Gypsum wall board		
	g. Glass h. Plaster on lath		
7.	Define the following terms as they relate to building construction:		
7.	a. Veneer wall (exterior)		
	b. Party wall		
	c. Fire wall		
	d. Partition wall		
	e. Cantilever or unsupported wall		
	f. Load bearing		
i			

#### **Instructor Equipment List**

Projector screen Chalkboard or Marker board Overhead projector Slide projector TV/VCR

#### Old FRT Number: 145 / FRT 115

### INTRODUCTION TO WILDLAND FIRE BEHAVIOR

Lecture Skill Fractional Credit

6 2 0.5

#### **Course Description**

This is an entry level course designed to familiarize firefighters with wildland fires. Items discussed in this course include: familiarization with the fire triangle, how environmental factors influence wildland fires, and the ability to recognize situations that indicate problem or extreme wildland fire behavior.

Prerequisites:

Corequisite:

Task List		
1.	Describe the fire triangle	
2.	Identify three methods of heat transfer	
3.	List the three principal environmental elements affecting wildland fire behavior	
4.	List three factors of fuel that affects the start and spread of wildland fires	
5.	List three factors of weather that affect fuel moisture	
6.	Describe how wind affects wildland fire spread	
7.	Describe how the slope affects wildland fire spread	
8.	List four factors of topography that affect wildland fire behavior	
9.	Describe the dangerous conditions that can develop in a box canyon and steep narrow canyons	
10	List indicators of an approaching cold front and describe what wind changes to expect	
11	List three common foehn wind conditions and the areas in which they occur	
12	Identify a thunderstorm and describe how and when it is dangerous	
13	Describe the daily cycle of slope and valley winds	
14.	Describe the effect relative humidity has on wildland fire behavior	
15.	Identify the wildland fire environment indicators that can produce problem and extreme fire behavior	

**Instructor Equipment List** 

Old FRT Number: FRT 116

## FIRE CONTROL LEVEL I

Lecture Skill Fractional Credit

15 6 1.4

#### **Course Description**

This course was designed to teach the student to control or extinguish stacks of Class "A" materials, combustible liquids, vehicle fires, exterior dumpster/trash bin, and Class A combustible materials within a structure.

Prerequisites: FRS 1011, 1016, 1028, 1034 or Consent Corequisite: NONE

	Task List		
1.	Extinguish or control the following live fires working as a member of a team and using appropriate protective		
	equipment, firefighting tools, and extinguishing agents:		
	a. Piles/stacks of class A combustible materials (exterior);		
	b. Open pans of combustible liquids (exterior);		
	c. Vehicle fires;		
	d. Storage containers (exterior dumpster/trash bin); and		
	e. Class "A" combustible materials within a structure (interior attack).		
2.	Explain the procedures for extinguishing ground cover fires.		

#### Lecture Instructor Equipment List

Projection screen Chalkboard or marker board Overhead projector Slide projector TV/VCR

#### Skills Instructor Equipment List

Class "A" pumper Assorted hand tools Pallets Fuel Straw Vehicle Flammable Liquid Fuel

#### **Student Equipment List**

Full Protective Clothing

#### Old FRT Number: 210 / FRT 117

## VENTILATION LEVEL I

Lecture Skill Fractional Credit

5 1 0.5

#### **Course Description**

This course involves the study of the principles of ventilation, including the methods of removing heated air, smoke and gases from a structure. This course will include a review of roof structures and their effects on ventilation procedures.

#### Prerequisites: FRS 1022 or consent

#### Corequisite: FRS 1033 or consent

	Task List
1.	Define the principles of ventilation and identify the advantages and effects of proper ventilation.
2.	Identify the safety considerations and precautions to be taken while ventilating a structure.
3.	Identify the signs, causes and effects of backdraft explosion.
4.	Identify methods of preventing a backdraft explosion.
5.	Describe the advantages and disadvantages of the following types of ventilation:
	a. Vertical,
	b. Horizontal,
	c. Trench/strip,
	d. Mechanical,
	e. Mechanical pressurization, and
	f. Hydraulic.
6.	Define procedures for the types of ventilation referred to in #5.
7.	Identify the types of tools used during ventilation.
8.	Demonstrate determining the integrity of a roof system by sounding.
9.	Demonstrate opening various types of windows from inside and outside, with and without the use of tools.
10.	Demonstrate breaking window or door glass and removing obstructions.
11.	Using both hand and power tools, demonstrate the ventilation of both pitched and flat roofs.
12.	Recognize the characteristics of and list necessary precautions when ventilating at least the following roof
	types:
	a. Flat,
	b. Shed,
	c. Pitched, and
	d. Arched.
13.	Describe how the following factors are used to determine the integrity of a roof system:
	a. Construction.
	b. Visual observation, and
	c. Elapsed time of fire.

#### Lecture Instructor Equipment List

Projection screen Chalkboard and Marker board Slide projector TV/VCR

Skills Instructor Equipment List

Ax Halligan Tool Extension Ladder Roof ladder Chain saw K-12 saw Pike Pole Fan Pumper attack line

#### **Student Equipment List**

Full protective equipment

#### Old FRT Number: 185 / FRT 118