



**COWLEY COLLEGE  
& Area Vocational Technical School**

**COURSE PROCEDURE FOR**

**Firefighter I  
FIR 5501 4 Credit Hours**

**Student Level:**

This course is open to students on the college level in either the Freshman or Sophomore year.

**Catalog Description:**

**FIR 5501 – Firefighter I (4 hrs)**

This course is designed to meet the learning objectives/performance objectives specified by the National Fire Protection Association (NFPA) standard 1001. The course is also designed to prepare the student for the Firefighter I certification process. Upon completion of the course, the student will develop competencies to increase understanding and skills in basic fire service operations.

**Co-requisites:**

FIR 5500 Hazardous Materials for First Responders (or equivalent hazardous materials certification)

**Controlling Purpose:**

This course is designed to meet the learning objectives/performance objectives specified by the National Fire Protection Association (NFPA) standard 1001. The course is also designed to prepare the student for the Firefighter I certification process.

**Learner Outcomes:**

Upon completion of the course, the student will develop competencies to increase understanding and skills in basic fire service operations.

**Units Outcomes and Clock Hours of Instruction for Core Curriculum:**

The following outline defines the minimum core content not including the final examination period. Instructors may add other material as time allows.

Evaluation Key:

- A = All major and minor goals have been achieved and the achievement level is considerably above the minimum required for doing more advanced work in the same field.
- B = All major goals have been achieved, but the student has failed to achieve some of the less important goals. However, the student has progressed to the point where the

- goals of work at the next level can be easily achieved.
- C = All major goals have been achieved, but many of the minor goals have not been achieved. In this grade range, the minimum level of proficiency represents a person who has achieved the major goals to the minimum amount of preparation necessary for taking more advanced work in the same field, but without any major handicap of inadequacy in his background.
- D = A few of the major goals have been achieved, but the student's achievement is so limited that he is not well prepared to work at a more advanced level in the same field.
- F = Failing, will be computed in GPA and hours attempted.
- N = No instruction or training in this area.

<b>UNIT 1: ORIENTATION AND FIRE SERVICE HISTORY</b>						
Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:						
A	B	C	D	F	N	Specific Competencies
						Summarize the history of the fire service.
						Explain the organizational characteristics, cultural challenges, and cultural strengths that influence the fire service.
						Describe the mission of the fire service. [NFPA® 1001, 5.1.1]
						Describe the organization of fire departments. [NFPA® 1001, 5.1.1]
						Distinguish among functions of fire companies. [NFPA® 1001, 5.1.1]
						Summarize primary knowledge and skills the firefighter must have to function effectively. [NFPA® 1001, 5.1.1, 6.1.1]
						Distinguish among the primary roles of fire service personnel. [NFPA® 1001, 5.1.1, 6.1.1]
						Describe fire department organizational principles. [NFPA® 1001, 5.1.1]
						Locate information in departmental documents and standard or code materials. [NFPA® 1001, 5.1.2]
						Distinguish between fire department SOPs and rules and regulations. [NFPA® 1001, 5.1.1]
						Explain the ways the fire service may interact with other organizations. [NFPA® 1001, 5.1.1]

<b>UNIT 2 : FIREFIGHTER SAFETY AND HEALTH</b>						
Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:						
A	B	C	D	F	N	Specific Competencies:
						List the main types of job-related firefighter fatalities, injuries, and illnesses. [NFPA® 1001, 5.1.1]

						Describe the National Fire Protection Association® standards related to firefighter safety and health. [NFPA® 1001, 5.1.1]
						Identify Occupational Safety and Health Administration (OSHA) regulations and how they relate to firefighters. [NFPA® 1001, 5.1.1]
						Summarize the model that supports the concept of risk management. [NFPA® 1001, 5.1.1]
						Describe fire department safety and health programs. [NFPA® 1001, 5.1.1]
						Summarize firefighter health awareness issues. [NFPA® 1001, 5.1.1]
						Summarize safe vehicle operations. [NFPA® 1001, 5.3.2]
						Summarize guidelines for riding safely on the apparatus. [NFPA® 1001, 5.3.2]
						Describe ways to help prevent accidents and injuries in fire stations and facilities. [NFPA® 1001, 5.1.1]
						Explain general guidelines for tool and equipment safety. [NFPA® 1001, 5.1.1]
						Describe ways to maintain safety in training. [NFPA® 1001, 5.1.1]
						State the practices a Firefighter I uses for emergency scene preparedness and safety. [NFPA® 1001, 5.1.1, 5.3.3]
						Summarize general guidelines for scene management including highway incidents, crowd control, and cordoning off emergency scenes. [NFPA® 1001, 5.1.1, 5.3.3]
						Explain the importance of personnel accountability. [NFPA® 1001, 5.3.5]
						Respond to an incident, correctly mounting and dismounting an apparatus. [NFPA® 1001, 5.3.2; Skill Sheet 2-I-1]
						Wearing appropriate PPE, including reflective vest, demonstrate scene management at roadway incidents using traffic and scene control devices. [NFPA® 1001, 5.3.3; Skill Sheet 2-I-2]

### UNIT 3: FIRE DEPARTMENT COMMUNICATIONS

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies
						Explain the procedures for receiving emergency and nonemergency external communications. [NFPA® 1001, 5.2.1, 5.2.2]
						Describe the information required to dispatch emergency services. [NFPA® 1001, 5.2.1, 5.2.2, 5.2.3]
						Describe the systems used for internal communications. [NFPA® 1001, 5.2.1, 5.2.2]
						Explain radio limitations that may impact internal communications. [NFPA® 1001, 5.2.3]
						Describe radio procedures used for internal communications. [NFPA® 1001,

						5.2.1, 5.2.3]
						Handle emergency and nonemergency calls. [NFPA® 1001, 5.2.1, 5.2.2 Skill Sheet 3-I-1]
						Use a portable radio for routine and emergency traffic. [NFPA® 1001, 5.2.1, 5.2.3 Skill Sheet 3-I-2]
						Explain the procedures for receiving emergency and nonemergency external communications. [NFPA® 1001, 5.2.1, 5.2.2]

#### UNIT 4: BUILDING CONSTRUCTION

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies
						Describe the impact of fire on common building materials. [NFPA® 1001, 5.3.4, 5.3.10, 5.3.12]
						Explain the impact of fire on construction classifications. [NFPA® 1001, 5.3.4, 5.3.10, 5.3.12]
						List the main types of occupancy classifications.
						Describe the basic construction of building components. [NFPA® 1001, 5.3.4, 5.3.10, 5.3.12]

#### UNIT 5 : FIRE BEHAVIOR

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Explain the science of fire as it relates to energy, forms of ignition, and modes of combustion. [NFPA® 1001, 5.3.11]
						Describe the impact of thermal energy on heat, temperature, and heat transfer. [NFPA® 1001, 5.3.12]
						Recognize the physical states of fuel. [NFPA® 1001, 5.3.10]
						Explain the relationship between oxygen and life safety. [NFPA® 1001, 5.3.11]
						Identify the products of self-sustained chemical reactions. [NFPA® 1001, 5.3.11]
						Explain the factors that affect fire development. [NFPA® 1001, 5.3.11]
						Describe the stages of fire development. [NFPA® 1001, 5.3.11]
						Recognize signs, causes, and effects of rapid fire development. [NFPA® 1001, 5.3.11]
						Describe the methods through which firefighting operations can influence fire behavior. [NFPA® 1001, 5.3.11, 5.3.12]

## UNIT 6 : FIREFIGHTER PERSONAL PROTECTIVE EQUIPMENT

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Describe the purpose of personal protective equipment. [NFPA® 1001, 5.1.1, 5.3.3]
						Describe characteristics of each type of personal protective equipment. [NFPA® 1001, 5.3.2]
						Summarize guidelines for the care of personal protective clothing. [NFPA® 1001, 5.1.1, 5.3.3, 5.5.1]
						Explain safety considerations for personal protective equipment. [NFPA® 1001, 5.3.1]
						Identify respiratory hazards. [NFPA® 1001, 5.3.1]
						Identify types of respiratory protection equipment. [NFPA® 1001, 5.3.1]
						Describe the limitations of respiratory protection equipment. [NFPA® 1001, 5.3.1]
						Explain methods for storing respiratory protection equipment. [NFPA® 1001, 5.5.1]
						Describe general donning and doffing considerations for protective breathing apparatus. [NFPA® 1001, 5.3.1, 5.3.2]
						Summarize general considerations for protective breathing apparatus inspections and care. [NFPA® 1001 5.1.1, 5.5.1]
						Summarize safety precautions for refilling SCBA cylinders. [NFPA® 5.5.1]
						Explain procedures for replacing SCBA cylinders. [NFPA® 1001 5.3.1]
						Explain safety precautions for SCBA use. [NFPA® 1001 5.3.1]
						Describe nonemergency and emergency exit indicators. [NFPA® 5.3.1]
						Describe nonemergency exit techniques. [NFPA® 1001 5.3.1]
						Demonstrate the method for donning structural personal protective clothing for use at an emergency. [NFPA® 1001, 5.1.2, 5.3.1, 5.3.2, 5.3.3, Skill Sheet 6-I-1]
						With structural personal protective clothing in place, demonstrate the over-the-head method of donning an SCBA. [NFPA® 1001 5.3.1, 5.3.2, 5.3.3, Skill Sheet 6-I-2]
						With structural personal protective clothing in place, demonstrate the coat method of donning an SCBA. [NFPA® 1001 5.3.1, 5.3.2, 5.3.3, Skill Sheet 6-I-3]
						With structural personal protective clothing in place, demonstrate the method for donning an SCBA while seated. [NFPA® 1001 5.3.1, 5.3.2, 5.3.3, Skill Sheet 6-I-4]

						Doff personal protective equipment, including respiratory protection, and prepare for reuse. [NFPA® 1001 5.1.2, 5.3.2, 5.3.3, Skill Sheet 6-I-5]
						Demonstrate the steps for inspecting an SCBA. [NFPA® 1001 5.3.2, 5.5.1; Skill Sheet 6-I-6]
						Demonstrate the steps for cleaning and sanitizing an SCBA. [NFPA® 1001 5.3.2, 5.5.1; Skill Sheet 6-I-7]
						Demonstrate the method for filling an SCBA cylinder from a cascade system, wearing appropriate PPE, including eye and ear protection. [NFPA® 1001 5.3.1; Skill Sheet 6-I-8]
						Demonstrate the method for filling an SCBA cylinder from a compressor/purifier system wearing appropriate PPE, including eye and ear protection. [NFPA® 1001 5.3.1; Skill Sheet 6-I-9]
						Demonstrate the one-person method for replacing an SCBA cylinder. [NFPA® 1001 5.3.1; Skill Sheet 6-I-10]
						Demonstrate the two-person method for replacing an SCBA cylinder. [NFPA® 1001 5.3.1; Skill Sheet 6-I-11]

## UNIT 7 : PORTABLE FIRE EXTINGUISHERS

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Explain portable fire extinguisher classifications. [NFPA® 1001, 5.3.16]
						Describe types of portable fire extinguishers. [NFPA® 1001, 5.3.16]
						Define the ratings in a portable fire extinguisher rating system. [NFPA® 1001, 5.3.16]
						Explain the considerations taken when selecting and using portable fire extinguishers. [NFPA® 1001, 5.3.16]
						Identify procedures used for the inspection, care, and maintenance of portable fire extinguishers. [NFPA® 1001, 5.3.16, 5.5.1]
						Operate a stored pressure water extinguisher. [NFPA® 1001, 5.3.16; Skill Sheet 7-I-1]
						Operate a dry chemical (ABC) extinguisher. [NFPA® 1001, 5.3.16; Skill Sheet 7-I-2]
						Operate a carbon dioxide (CO <sub>2</sub> ) extinguisher. [NFPA® 1001, 5.3.16; Skill Sheet 7-I-3]

## UNIT 8 : ROPES, WEBBING, AND KNOTS

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Compare and contrast the characteristics of life safety rope and utility rope. [NFPA® 1001, 5.3.2]
						Summarize basic guidelines for rope maintenance. [NFPA® 1001, 5.5.1]
						Explain reasons for placing rope out of service. [NFPA® 1001, 5.3.20]
						Describe webbing and webbing construction. [NFPA® 1001, 5.3.20]
						Describe parts of a rope and considerations in tying a knot. [NFPA® 1001, 5.1.2, 5.3.20]
						Describe knot characteristics and knot elements. [NFPA® 1001, 5.1.2, 5.3.20]
						Describe characteristics of knots commonly used in the fire service. [NFPA® 1001, 5.1.2, 5.3.20]
						Select commonly used rope hardware for specific applications. [NFPA® 1001, 5.1.2, 5.3.20]
						Summarize hoisting safety considerations. [NFPA® 1001, 5.1.2, 5.3.20]
						Inspect, clean, and store rope. [NFPA® 1001 5.5.1; Skill Sheet 8-I-1]
						Tie an overhand knot. [NFPA® 1001 5.3.20; Skill Sheet 8-I-2]
						Tie a bowline knot. [NFPA® 1001 5.3.20; Skill Sheet 8-I-3]
						Tie a clove hitch. [NFPA® 1001 5.3.20; Skill Sheet 8-I-4]
						Tie a clove hitch around an object. [NFPA® 1001 5.3.20; Skill Sheet 8-I-5]
						Tie a handcuff (rescue) knot. [NFPA® 1001 5.3.20; Skill Sheet 8-I-6]
						Tie a figure-eight knot. [NFPA® 1001 5.3.20; Skill Sheet 8-I-7]
						Tie a figure-eight bend. [NFPA® 1001 5.3.20; Skill Sheet 8-I-8]
						Tie a figure-eight on a bight. [NFPA® 1001 5.3.20; Skill Sheet 8-I-9]
						Tie a figure-eight follow through. [NFPA® 1001 5.3.20; Skill Sheet 8-I-10]
						Tie a Becket bend. [NFPA® 1001 5.3.20; Skill Sheet 8-I-11]
						Tie a water knot. [NFPA® 1001 5.3.20; Skill Sheet 8-I-12]
						Hoist an axe. [NFPA® 1001 5.1.2, 5.3.20; Skill Sheet 8-I-13]
						Hoist a pike pole. [NFPA® 1001 5.1.2, 5.3.20; Skill Sheet 8-I-14]
						Hoist a roof ladder. [NFPA® 1001 5.1.2, 5.3.20; Skill Sheet 8-I-15]
						Hoist a dry hoseline. [NFPA® 1001 5.1.2, 5.3.20; Skill Sheet 8-I-16]
						Hoist a charged hoseline. [NFPA® 1001 5.1.2, 5.3.20; Skill Sheet 8-I-17]
						Hoist a power saw. [NFPA® 1001 5.1.2, 5.3.20; Skill Sheet 8-I-18]

**UNIT 9 : STRUCTURAL SEARCH, VICTIM REMOVAL, AND FIREFIGHTER SURVIVAL**

Outcomes: Upon completion of the unit, the student will be able to successfully

demonstrate the ability to:						
A	B	C	D	F	N	Specific Competencies:
						Summarize the impact of building construction and floor plans on structural search techniques. [NFPA® 1001, 5.3.9]
						Explain size-up and situational awareness considerations during structural searches. [NFPA® 1001, 5.3.9]
						Summarize safety guidelines for structural search and rescue. [NFPA® 1001, 5.3.9]
						Differentiate between primary and secondary search techniques. [NFPA® 1001, 5.3.9]
						Recognize basic search methods. [NFPA® 1001, 5.3.9]
						Describe victim removal methods. [NFPA® 1001, 5.3.5, 5.3.9]
						Explain firefighter survival methods. [NFPA® 1001, 5.3.1, 5.3.5, 5.3.9]
						Explain what survival actions firefighters can take when needed. [NFPA® 1001, 5.3.1, 5.3.5]
						Describe the actions of a rapid intervention crew or team (RIC/RIT) when locating a downed firefighter. [NFPA® 1001, 5.3.5, 5.3.9]
						Demonstrate the procedure for conducting a primary search. [NFPA® 1001, 5.3.9; Skill Sheet 9-I-1]
						Demonstrate the procedure for conducting a secondary search. [NFPA® 1001, 5.3.9; Skill Sheet 9-I-2]
						Demonstrate the incline drag. [NFPA® 1001, 5.3.9; Skill Sheet 9-I-3]
						Demonstrate the webbing drag. [NFPA® 1001, 5.3.9; Skill Sheet 9-I-4]
						Demonstrate the cradle-in-arms lift/carry — One-rescuer method. [NFPA® 1001, 5.3.9; Skill Sheet 9-I-5]
						Demonstrate the seat lift/carry — Two-rescuer method. [NFPA® 1001, 5.3.9; Skill Sheet 9-I-6]
						Demonstrate the extremities lift/carry — Two-rescuer method. [NFPA® 1001, 5.3.9; Skill Sheet 9-I-7]
						Demonstrate the actions required for transmitting a MAYDAY report. [NFPA® 1001, 5.2.4, 5.3.5, 5.3.9; Skill Sheet 9-I-8]
						Demonstrate the proper procedures for an SCBA air emergency. [NFPA® 1001, 5.3.1, 5.3.5, 5.3.9; Skill Sheet 9-I-9]
						Demonstrate the actions required for withdrawing from a hostile environment with a hoseline. [NFPA® 1001, 5.3.5, 5.3.9; Skill Sheet 9-I-10]
						Demonstrate low profile maneuvers without removing SCBA – Side technique. [NFPA® 1001, 5.3.1, 5.3.5, 5.3.9; Skill Sheet 9-I-11]
						Perform low profile maneuvers without removing SCBA – SCBA- first technique. [NFPA® 1001, 5.3.1, 5.3.5, 5.3.9; Skill Sheet 9-I-12]



						Demonstrate the method for breaching an interior wall. [NFPA® 1001, 5.3.5, 5.3.9; Skill Sheet 9-I-13]
						Demonstrate the steps for disentangling from debris or wires. [NFPA® 1001, 5.3.5, 5.3.9; Skill Sheet 9-I-14]

**UNIT 10 : SCENE LIGHTING, RESCUE TOOLS, VEHICLE EXTRICATION, AND TECHNICAL RESCUE**

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Identify types of emergency scene lighting equipment. [NFPA® 1001, 5.3.17]

**UNIT 11 : FORCIBLE ENTRY**

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Explain the basic principles of forcible entry. [NFPA® 1001, 5.3.4]
						Describe the basic construction of locksets. [NFPA® 1001, 5.3.4]
						Describe considerations a firefighter must take when using forcible entry tools. [NFPA® 1001, 5.3.4]
						Indicate steps needed to care for and maintain forcible entry tools. [NFPA® 1001, 5.5.1]
						Explain the ways to force entry through various types of doors. [NFPA® 1001, 5.3.4]
						Identify considerations that need to be taken when forcing entry through locks, padlocks, overhead doors, and fire doors. [NFPA® 1001, 5.3.4]
						Describe forcible entry methods used for windows. [NFPA® 1001, 5.3.4]
						Explain considerations firefighters must take when forcing entry through miscellaneous types of windows and covers. [NFPA® 1001, 5.3.4]
						Describe forcible entry methods for breaching walls. [NFPA® 1001, 5.3.4]
						Explain forcible entry methods for breaching floors. [NFPA® 1001, 5.3.4]
						Indicate methods for forcing fences and gates. [NFPA® 1001, 5.3.4]
						Clean, inspect, and maintain hand tools and equipment. [NFPA® 1001, 5.5.1; Skill Sheet 11-I-1]
						Clean, inspect, and maintain power tools and equipment. [NFPA® 1001, 5.5.1]; Skill Sheet 11-I-2]
						Force entry through an inward-swinging door – Two-firefighter method. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-3]

						Force entry through an inward-swinging door – Cutting the lock out of the door method. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-4]
						Force entry through an outward-swinging door – Removing hinge-pins method. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-5]
						Force entry through an outward-swinging door – Wedge-end method. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-6]
						Force entry using the through-the-lock method. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-7]
						Force entry using the through-the-lock method using the K-tool. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-8]
						Force entry using the through-the-lock method using the A-tool. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-9]
						Force entry through padlocks. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-10]
						Use a bam-bam tool. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-11]
						Cut a padlock with a rotary saw. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-12]
						Force entry through a window. (glass pane). [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-13]
						Force entry through a double-hung window. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-14]
						Force a Lexan® window using a rotary saw. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-15]
						Force entry through a wood-framed wall. (Type V construction) with hand tools. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-16]
						Force entry through a wood wall. (Type V construction) with a rotary saw or chain saw. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-17]
						Breach a wall using a battering ram. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-18]
						Force entry through a masonry wall with hand tools. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-19]
						Force entry through a metal wall with power tools. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-20]
						Breach a hardwood floor. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-21]
						Bridge a fence with a ladder. [NFPA® 1001, 5.3.4, 5.3.14; Skill Sheet 11-I-22]

## UNIT 12 : GROUND LADDERS

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
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					Describe different construction types of ground ladders. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Identify the parts of a ladder including markings and labels. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Recognize the types of ladders used in the fire service. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Explain the considerations addressed by ladder inspection, cleaning, and maintenance. [NFPA® 1001, 5.5.1]
					Describe safety guidelines used when handling ladders. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Explain considerations taken when selecting, lifting, and lowering a ladder. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Describe various methods for ladder carries. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Identify basic considerations and requirements for ground ladder placement. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Describe various methods for ladder raises. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Compare procedures for moving ground ladders. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Explain the methods used to secure ladders. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Describe ladder climbing considerations. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Indicate what methods can be used to work from a ladder. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Explain methods used for assisting a victim down a ladder. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]
					Clean, inspect, and maintain a ladder. [NFPA® 1001, 5.5.1; Skill Sheet 12-I-1]
					Carry a ladder – One-firefighter low-shoulder method. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-2]
					Carry a ladder – Two-firefighter low-shoulder method. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-3]
					Carry a ladder – Three-firefighter flat-shoulder method. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-4]
					Carry a ladder – Three-firefighter flat-arm's length method. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-5]
					Carry a ladder – Two-firefighter arm's length on-edge method. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-6]
					Tie the halyard. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-7]
					Raise a ladder – One-firefighter method. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-8]
					Raise a ladder – Two-firefighter flat raise. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-9]

						Raise a ladder – Two-firefighter beam raise. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-10]
						Raise a ladder – Three- or four-firefighter flat raise. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-11]
						Deploy a roof ladder – One-firefighter method. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-12]
						Pivot a ladder – Two-firefighter method. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-13]
						Shift a ladder – One-firefighter method. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-14]
						Shift a ladder – Two-firefighter method. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-15]
						Heel a ground ladder. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-16]
						Leg lock on a ground ladder. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12; Skill Sheet 12-I-17]
						Assist a conscious victim down a ground ladder. [NFPA® 1001, 5.3.9; Skill Sheet 12-I-18]
						Assist an unconscious victim down a ground ladder. [NFPA® 1001, 5.3.9; Skill Sheet 12-I-19]

### UNIT 13 : TACTICAL VENTILATION

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Describe reasons for tactical ventilation. [NFPA® 1001, 5.3.11]
						Identify considerations that affect the decision to ventilate. [NFPA® 1001, 5.3.11, 5.3.12]
						Explain the critical fire behavior indicators present during tactical ventilation. [NFPA® 1001, 5.3.11]
						Define horizontal and vertical ventilation. [NFPA® 1001, 5.3.11]
						Explain the means for achieving horizontal and vertical ventilation. [NFPA® 1001, 5.3.11, 5.3.12]
						Describe the types of horizontal ventilation. [NFPA® 1001, 5.3.11, 5.3.12]
						Describe the types of vertical ventilation. [NFPA® 1001, 5.3.11, 5.3.12]
						Recognize other types of ventilation situations. [NFPA® 1001, 5.3.11]
						Explain the effects of building systems on tactical ventilation. [NFPA® 1001, 5.3.11, 5.3.12]
						Ventilate using mechanical negative pressure in a window. [NFPA® 1001, 5.3.11, 5.3.12; Skill Sheet 13-I-1]

					Ventilate using mechanical negative pressure in a doorway. [NFPA® 1001, 5.3.11, 5.3.12; Skill Sheet 13-I-2]
					Ventilate using mechanical positive pressure. [NFPA® 1001, 5.3.11, 5.3.12; Skill Sheet 13-I-3]
					Perform horizontal hydraulic ventilation. [NFPA® 1001, 5.3.11, 5.3.12; Skill Sheet 13-I-4]
					Demonstrate the procedure for sounding a roof. [NFPA® 1001, 5.3.12; Skill Sheet 13-I-5]
					Ventilate using a rotary saw to cut an opening. [NFPA® 1001, 5.3.12; Skill Sheet 13-I-6]
					Ventilate using an axe to cut an opening. [NFPA® 1001, 5.3.12; Skill Sheet 13-I-7]
					Demonstrate the procedure for opening a flat roof. [NFPA® 1001, 5.3.12; Skill Sheet 13-I-8]
					Perform the steps for opening pitched roofs. [NFPA® 1001, 5.3.12; Skill Sheet 13-I-9]
					Demonstrate the procedure for making a trench cut using a rotary saw. [NFPA® 1001, 5.3.12; Skill Sheet 13-I-10]

#### UNIT 14 : WATER SUPPLY

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Explain the ways water supply system components are used by firefighters. [NFPA® 1001, 5.3.15]
						Describe types of fire hydrants and hydrant markings. [NFPA® 1001, 5.3.15]
						Explain fire hydrant operation and inspection considerations. [NFPA® 1001, 5.3.15]
						Explain alternative water supply sources and methods of access. [NFPA® 1001, 5.3.15]
						Describe methods used for rural water supply operations. [NFPA® 1001, 5.3.15]
						Operate a hydrant. [NFPA® 1001, 5.3.15; Skill Sheet 14-I-1]
						Make soft-sleeve and hard-suction hydrant connections. [NFPA® 1001, 5.3.15; Skill Sheet 14-I-2]
						Connect and place a hard-suction hose for drafting from a static water source. [NFPA® 1001, 5.3.15; Skill Sheet 14-I-3]
						Deploy a portable water tank. [NFPA® 1001, 5.3.15; Skill Sheet 14-I-4]

**UNIT 15 : FIRE HOSE**

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Explain basic fire hose characteristics. [NFPA® 1001, 5.3.8, 5.3.10]
						Describe different causes of and prevention methods for hose damage. [NFPA® 1001, 5.5.2]
						Identify basic inspection, care, and maintenance methods for fire hose. [NFPA® 1001, 5.5.2]
						Compare various uses for hose appliances and tools. [NFPA® 1001, 5.3.8, 5.3.10]
						Describe basic hose rolls. [NFPA® 1001, 5.5.2]
						Explain basic hose loads and finishes. [NFPA® 1001, 5.5.2]
						Compare various methods to make preconnected hose loads for attack lines. [NFPA® 1001, 5.5.2]
						Explain the methods used for supply hose lays. [NFPA® 1001, 5.3.8, 5.3.15]
						Recognize different methods for handling hoselines. [NFPA® 1001, 5.3.8, 5.3.10]
						Describe methods for advancing hoselines in various ways. [NFPA® 1001, 5.3.8, 5.3.10]
						List the considerations that can impact operating attack hoselines. [NFPA® 1001, 5.3.8, 5.3.10]
						Couple and uncouple a hose. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-1]
						Inspect and maintain a fire hose. [NFPA® 1001, 5.5.2; Skill Sheet 15-I-2]
						Make a straight hose roll. [NFPA® 1001, 5.5.2; Skill Sheet 15-I-3]
						Make a donut hose roll. [NFPA® 1001, 5.5.2; Skill Sheet 15-I-4]
						Make the flat hose load. [NFPA® 1001, 5.5.2; Skill Sheet 15-I-5]
						Make the accordion hose load. [NFPA® 1001, 5.5.2; Skill Sheet 15-I-6]
						Make the horseshoe hose load. [NFPA® 1001, 5.5.2; Skill Sheet 15-I-7]
						Make a finish. [NFPA® 1001, 5.5.2; Skill Sheet 15-I-8]
						Make the preconnected flat hose load. [NFPA® 1001, 5.5.2; Skill Sheet 15-I-9]
						Make the triple layer hose load. [NFPA® 1001, 5.5.2; Skill Sheet 15-I-10]
						Make the minuteman hose load. [NFPA® 1001, 5.5.2; Skill Sheet 15-I-11]
						Make a hydrant connection from a forward lay. [NFPA® 1001, 5.5.2; Skill Sheet 15-I-12]
						Make the reverse hose lay. [NFPA® 1001, 5.5.2; Skill Sheet 15-I-13]

						Advance a hose load. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-14]
						Deploy a wye-equipped hose during a reverse hose lay. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-15]
						Advance a charged hoseline using the working line drag method. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-16]
						Advance a line into a structure. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-17]
						Advance a line up and down an interior stairway. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-18]
						Connect to a stairway standpipe connection and advance an attack hoseline onto a floor. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-19]
						Advance an uncharged line up a ladder into a window. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-20]
						Advance a charged line up a ladder into a window. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-21]
						Operate a charged attack line from a ladder. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-22]
						Operate a small hoseline – One-firefighter method. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-23]
						Operate a large hoseline for exposure protection – One-firefighter method. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-24]
						Operate a large hoseline – Two-firefighter method. [NFPA® 1001, 5.3.15; Skill Sheet 15-I-25]
						Extend a hoseline. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-26]
						Replace a burst hoseline. [NFPA® 1001, 5.3.10; Skill Sheet 15-I-27]

## UNIT 16 : FIRE STREAMS

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Explain the way vaporization and steam relate to the extinguishing properties of water. [NFPA® 1001, 5.3.10]
						Identify the factors that create pressure loss or gain. [NFPA® 1001, 5.3.10]
						Describe the impact water hammer has on fire streams. [NFPA® 1001, 5.3.10]
						Explain fire stream patterns and their possible limiting factors. [NFPA® 1001, 5.3.10]
						Describe the three types of fire stream nozzles. [NFPA® 1001, 5.3.10]
						Compare the different types of nozzle control valves. [NFPA® 1001, 5.3.10]
						Describe the factors in operating and maintaining handline nozzles. [NFPA® 1001, 5.3.10]

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						Operate a fog-stream nozzle. [NFPA® 1001, 5.3.10; Skill Sheet 16-I-1]
						Operate a broken stream nozzle. [NFPA® 1001, 5.3.10; Skill Sheet 16-I-2]
						Operate a solid stream nozzle. [NFPA® 1001, 5.3.10; Skill Sheet 16-I-3]

## UNIT 17 : FIRE CONTROL

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Describe initial factors to consider when suppressing structure fires. [NFPA® 1001, 5.3.8, 5.3.10]
						Summarize considerations taken when making entry. [NFPA® 1001, 5.3.8, 5.3.10]
						Describe direct attack, indirect attack, combination attack, and gas cooling techniques. [NFPA® 1001, 5.3.8, 5.3.10]
						Describe safety considerations that must be identified for upper level structure fires. [NFPA® 1001, 5.3.8, 5.3.10]
						Explain actions taken when attacking belowground structure fires. [NFPA® 1001, 5.3.8, 5.3.10]
						Discuss methods of fire control through exposure protection and controlling building utilities. [NFPA® 1001, 5.3.18]
						Describe steps taken when supporting fire protection systems at protected structures. [NFPA® 1001, 5.3.8, 5.3.10, 5.3.14]
						Explain considerations taken when deploying, supplying, and staffing master stream devices. [NFPA® 1001, 5.3.8]
						Describe situations that may require suppression of Class C fires. [NFPA® 1001, 5.3.8, 5.3.10]
						Identify hazards associated with suppressing Class C fires. [NFPA® 1001, 5.3.8, 5.3.10]
						Describe actions associated with suppressing Class D fires. [NFPA® 1001, 5.3.8, 5.3.10]
						Explain actions taken when suppressing a vehicle fire. [NFPA® 1001, 5.3.7]
						Compare methods used to suppress fires in stacked and piled materials, small unattached structures, and trash containers. [NFPA® 1001, 5.3.8]
						Summarize the main influences on ground cover fire behavior. [NFPA® 1001, 5.3.19]
						Compare types of ground cover fires. [NFPA® 1001, 5.3.19]
						Describe elements that influence ground cover fire behavior. [NFPA® 1001, 5.3.19]
						Identify the parts of a ground cover fire. [NFPA® 1001, 5.3.19]



						Describe protective clothing and equipment used in fighting ground cover fires. [NFPA® 1001, 5.3.19]
						Describe methods used to attack ground cover fires. [NFPA® 1001, 5.3.19]
						Summarize safety principles and practices when fighting ground cover fires. [NFPA® 1001, 5.3.19]
						Attack a structure fire using a direct, indirect, or combination attack. [NFPA® 1001, 5.3.8, 5.3.10, 5.3.13; Skill Sheet 17-I-1]
						Attack a structure fire above, below, and at ground level – Interior attack. [NFPA® 1001, 5.3.8, 5.3.10, 5.3.13; Skill Sheet 17-I-2]
						Turn off building utilities. [NFPA® 1001, 5.3.18; Skill Sheet 17-I-3]
						Connect supply fire hose to a fire department connection. [NFPA® 1001, 5.3.8, 5.3.10, 5.3.14; Skill Sheet 17-I-4]
						Operate a sprinkler system control valve. [NFPA® 1001, 5.3.8, 5.3.10, 5.3.14, 5.3.15; Skill Sheet 17-I-5]
						Stop the flow of water of an activated sprinkler. [NFPA® 1001, 5.3.8, 5.3.10, 5.3.14; Skill Sheet 17-I-6]
						Deploy and operate a portable master stream device. [NFPA® 1001, 5.3.8; Skill Sheet 17-I-7]
						Attack a passenger vehicle fire. [NFPA® 1001, 5.3.7; Skill Sheet 17-I-8]
						Attack a fire in stacked or piled materials. [NFPA® 1001, 5.3.8; Skill Sheet 17-I-9]
						Attack a fire in a small unattached structure. [NFPA® 1001, 5.3.8; Skill Sheet 17-I-10]
						Extinguish a fire in a trash container. [NFPA® 1001, 5.3.8; Skill Sheet 17-I-11]
						Attack a ground cover fire. [NFPA® 1001, 5.3.19; Skill Sheet 17-I-12]

## UNIT 18 : LOSS CONTROL

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Explain the philosophy of loss control. [NFPA® 1001, 5.3.14]
						Describe the ways preincident planning impacts loss control. [NFPA® 1001, 5.3.14]
						Determine appropriate salvage procedures. [NFPA® 1001, 5.3.14]
						Compare and contrast different types of salvage covers. [NFPA® 1001, 5.3.14]
						Explain ways to fold, roll, spread, and improvise with salvage covers. [NFPA® 1001, 5.3.14]
						Describe ways to cover openings during salvage operations. [NFPA® 1001, 5.3.14]

						Explain methods used to maintain fire safety during overhaul. [NFPA® 1001, 5.3.13]
						Describe factors that influence locating hidden fires. [NFPA® 1001, 5.3.10, 5.3.13]
						Identify different overhaul procedures. [NFPA® 1001, 5.3.13]
						Indicate the ways a thermal imager can be used during overhaul. [NFPA® 1001, 5.3.13]
						Clean, inspect, and repair a salvage cover. [NFPA® 1001, 5.3.14; Skill Sheet 18-I-1]
						Roll a salvage cover for a one-firefighter spread. [NFPA® 1001, 5.3.14; Skill Sheet 18-I-2]
						Spread a rolled salvage cover — One-firefighter method. [NFPA® 1001, 5.3.14; Skill Sheet 18-I-3]
						Fold a salvage cover for a one-firefighter spread. [NFPA® 1001, 5.3.14; Skill Sheet 18-I-4]
						Spread a folded salvage cover — One-firefighter method. [NFPA® 1001, 5.3.14; Skill Sheet 18-I-5]
						Fold a salvage cover for a two-firefighter spread. [NFPA® 1001, 5.3.14; Skill Sheet 18-I-6]
						Spread a folded salvage cover — Two-firefighter balloon throw. [NFPA® 1001, 5.3.14; Skill Sheet 18-I-7]
						Construct a water chute without pike poles. [NFPA® 1001, 5.3.14; Skill Sheet 18-I-8]
						Construct a water chute with pike poles. [NFPA® 1001, 5.3.14; Skill Sheet 18-I-9]
						Construct a catchall. [NFPA® 1001, 5.3.14; Skill Sheet 18-I-10]
						Make a chute and attach it to a catchall. [NFPA® 1001, 5.3.14; Skill Sheet 18-I-11]
						Locate and extinguish hidden fires. [NFPA® 1001, 5.3.10, 5.3.13; Skill Sheet 18-I-12]

### UNIT 19 : FIRE ORIGIN AND CAUSE DETERMINATION

Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Explain ways to recognize obvious signs of the area of origin. [NFPA® 1001, 5.3.8, 5.3.14]
						Describe the relationship between fire cause classifications and cause determination. [NFPA® 1001, 5.3.8, 5.3.13]
						Recognize signs of arson. [NFPA® 1001, 5.3.13]

						Describe the importance of preserving evidence. [NFPA® 1001, 5.3.8, 5.3.14]
						Explain techniques for preserving evidence. [NFPA® 1001, 5.3.8, 5.3.14]

**UNIT 20 : FIRE AND LIFE SAFETY INITIATIVES**  
 Outcomes: Upon completion of the unit, the student will be able to successfully demonstrate the ability to:

A	B	C	D	F	N	Specific Competencies:
						Explain the steps taken during fire and life safety program development. [NFPA® 1001, 5.1.1]
						Describe the components involved in fire and life safety program delivery. [NFPA® 1001, 5.1.1]
						Explain the impact of safety hazards, messages, and target audiences on creating fire and life safety education programs. [NFPA® 1001, 5.1.1]
						Indicate ways to identify and prevent firesetter development. [NFPA® 1001, 5.1.1]
						Describe the role of a Firefighter I in enforcing fire and life safety codes. [NFPA® 1001, 5.1.1]

**Projects Required:**  
 Varies, refer to syllabus.

**Textbook:**  
 Contact Bookstore for current textbook.

**Materials/Equipment Required:**  
 None

**Attendance Policy:**  
 Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

**Grading Policy:**  
 The grading policy will be outlined by the instructor in the course syllabus.

**Maximum class size:**  
 Based on classroom occupancy

**Course Time Frame:**  
 The U.S. Department of Education, Higher Learning Commission and the Kansas Board of Regents define credit hour and have specific regulations that the college must follow when developing, teaching and assessing the educational aspects of the college. A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established

equivalency that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for approximately fifteen weeks for one semester hour of credit or an equivalent amount of work over a different amount of time. The number of semester hours of credit allowed for each distance education or blended hybrid courses shall be assigned by the college based on the amount of time needed to achieve the same course outcomes in a purely face-to-face format.

**Refer to the following policies:**

[402.00 Academic Code of Conduct](#)

[263.00 Student Appeal of Course Grades](#)

[403.00 Student Code of Conduct](#)

**Disability Services Program:**

Cowley College, in recognition of state and federal laws, will accommodate a student with a documented disability. If a student has a disability which may impact work in this class and which requires accommodations, contact the Disability Services Coordinator.