



**COWLEY COLLEGE  
& Area Vocational Technical School**

**COURSE PROCEDURE FOR**

**Firefighter II  
FIR 5502 3 Credit Hours**

**Student Level:**

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

**Catalog Description:**

**FIR 5502 – Firefighter II (3 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 II certification process. Upon completion of the course, the student will develop competencies to increase understanding and skills in basic and advanced fire service operations.

**Prerequisites:**

FIR 5500 Hazardous Materials for First Responders (or equivalent hazardous materials certification)  
FIR 5502 Firefighter I (or equivalent 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 II certification process.

**Learner Outcomes:**

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

### UNIT 1: 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
						Describe the aspects that make up on-scene communications. [NFPA® 6.2.2]
						Explain the information gathered by postincident reports. [NFPA® 6.2.1]
						Create an incident report. [NFPA® 6.2.1, Skill Sheet 3-II-I]

### UNIT 2 : 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:
						Explain the hazards related to building construction. [NFPA® 1001, 6.3.2]
						Recognize the factors that influence structural collapse potential. [NFPA® 1001, 6.3.2]

### UNIT 3: 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
						Explain considerations for maintenance of electric generators and lighting equipment. [NFPA® 1001, 6.4.2, 6.5.4]
						Describe the types of rescue tools and equipment. [NFPA® 1001, 6.4.2, 6.5.4]
						Explain the uses and limitations of each type of rescue tool. [NFPA® 1001, 6.4.1, 6.4.2, 6.5.4]

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						Identify the role of a fire department during vehicle extrication. [NFPA® 1001, 6.4.1]
						Describe safety considerations that must be identified and mitigated during vehicle extrication. [NFPA® 1001, 6.4.1]
						Explain the use of cribbing material during vehicle extrication. [NFPA® 1001, 6.4.1]
						Describe the methods used for gaining access to victims during vehicle extrication. [NFPA® 1001, 6.4.1]
						Explain the role a Firefighter II will play in technical rescue operations. [NFPA® 1001, 6.4.2]
						Explain the unique hazards associated with each type of technical rescue operation. [NFPA® 1001, 6.4.2]
						Demonstrate the steps for inspecting, servicing, and maintaining a portable generator and lighting equipment. [NFPA® 1001, 6.5.4; Skill Sheet 10-II-1]
						Prevent horizontal movement of a vehicle using wheel chocks. [NFPA® 1001, 6.4.1; Skill Sheet 10-II-2]
						Stabilize a vehicle using cribbing. [NFPA® 1001, 6.4.1; Skill Sheet 10-II-3]
						Stabilize a vehicle using lifting jacks. [NFPA® 1001, 6.4.1; Skill Sheet 10-II-4]
						Stabilize a vehicle using a system of ropes and webbing. [NFPA® 1001, 6.4.1; Skill Sheet 10-II-5]
						Stabilize a side-resting vehicle using a buttress tension system. [NFPA® 1001, 6.4.1; Skill Sheet 10-II-6]
						Remove a windshield in an older model vehicle. [NFPA® 1001, 6.4.1; Skill Sheet 10-II-7]
						Remove a tempered glass side window. [NFPA® 1001, 6.4.1; Skill Sheet 10-II-8]
						Remove a roof from an upright vehicle. [NFPA® 1001, 6.4.1; Skill Sheet 10-II-9]
						Remove a roof from a vehicle on its side. [NFPA® 1001, 6.4.1; Skill Sheet 10-II-10]
						Displace the dashboard. [NFPA® 1001, 6.4.1; Skill Sheet 10-II-11]

#### UNIT 4: 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
						Describe the safety considerations taken when service testing a fire hose. [NFPA® 1001, 6.5.5]
						Service test a fire hose. [NFPA® 1001, 6.5.5; Skill Sheet 15-II-1]

#### UNIT 5 : 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:
						Describe the methods by which firefighting foam prevents or controls a hazard. [NFPA® 1001, 6.3.1]
						Identify foam concentrates. [NFPA® 1001, 6.3.1]
						Explain the factors that impact foam expansion and selection. [NFPA® 1001, 6.3.1]
						Describe methods by which foam may be proportioned. [NFPA® 1001, 6.3.1]
						Explain the advantages and disadvantages of various foam proportioners, delivery devices, and generating systems. [NFPA® 1001, 6.3.1, 6.3.2]
						Identify causes of poor foam production. [NFPA® 1001, 6.3.1, 6.3.2]
						Distinguish among various foam application techniques. [NFPA® 1001, 6.3.1, 6.3.2]
						Identify foam hazards and ways to control them. [NFPA® 1001, 6.3.1, 6.3.2]
						Place a foam line in service using an in-line eductor. [NFPA® 1001, 6.3.1, 6.3.2, Skill Sheet 16-II-1]
						Extinguish an ignitable liquid fire. [NFPA® 1001, 6.3.1, Skill Sheet 16-II-2]

## **UNIT 6 : 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 considerations taken when coordinating fireground operations. [NFPA® 1001, 6.1.1, 6.1.2, 6.3.2]
						Explain fireground roles and responsibilities a firefighter II may need to coordinate. [NFPA® 1001, 6.1.1, 6.1.2, 6.3.2]
						Discuss the process of establishing and transferring Command. [NFPA® 1001, 6.1.1, 6.1.2, 6.3.2]
						Describe hazards that may be present at fires in underground spaces. [NFPA® 1001, 6.3.2]
						List safety precautions that should be taken at flammable/combustible liquid fire incidents. [NFPA® 1001, 6.3.1, 6.3.3]
						Recognize methods used when coordinating operations at a property protected by a fire suppression system. [NFPA® 1001, 6.3.2]
						Explain ways to use water to control Class B fires. [NFPA® 1001, 6.3.1]
						Compare methods used to suppress bulk transport vehicle fires and flammable gas incidents. [NFPA® 1001, 6.3.3]

					Establish Incident Command and coordinate interior attack of a structure fire. [NFPA® 1001, 6.1.1, 6.1.2, 6.3.2; Skill Sheet 17-II-1]
					Control a pressurized flammable gas container fire. [NFPA® 1001, 6.3.3; Skill Sheet 17-II-2]

**UNIT 7 : 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:
						Describe types of evidence used to indicate the area of origin or fire cause. [NFPA® 1001, 6.3.4]
						Recognize fire cause evidence. [NFPA® 1001, 6.3.4]
						Explain the roles and responsibilities of responders and investigators involved in fire investigations. [NFPA® 1001, 6.3.4]
						Tell what legal issues impact location and collection of evidence during a fire investigation. [NFPA® 1001 6.3.4]
						Protect evidence of fire cause and origin. [NFPA® 1001, 6.3.4, Skill Sheet 19-II-1]

**UNIT 8 : FIRE PROTECTION SYSTEMS**

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 fire alarm systems. [NFPA® 1001, 6.5.3]
						Identify alarm initiating devices. [NFPA® 1001, 6.5.3]
						Explain the ways automatic sprinkler systems work. [NFPA® 1001, 6.5.3]
						Describe standpipe and hose systems. [NFPA® 1001, 6.5.3]
						Explain the ways smoke management systems work. [NFPA® 1001, 6.5.3]

**UNIT 9 : 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:
						Describe the role of a Firefighter II in planning for and conducting private dwelling fire safety surveys. [NFPA® 1001, 6.5.1]
						Explain the components that must be considered when developing fire and life safety presentations. [NFPA® 1001, 6.5.2]
						Recognize considerations that must be addressed when giving presentations to young children and fire station tours. [NFPA® 1001, 6.5.1, 6.5.2]
						Describe the role of a Firefighter II in planning for and conducting preincident planning surveys. [NFPA® 1001, 6.5.1, 6.5.3]
						Conduct a fire safety survey in an occupied structure. [NFPA® 1001, 6.5.1; Skill

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						Sheet 21-II-1]
						Make a fire and life safety presentation. [NFPA® 1001, 6.5.1, 6.5.2; Skill Sheet 21-II-2]
						Conduct a fire station tour. [NFPA® 1001, 6.5.1, 6.5.2; Skill Sheet 21-II-3]
						Prepare a preincident planning survey. [NFPA® 1001, 6.5.1, 6.5.3; Skill Sheet 21-II-4]

**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.