

Firefighter Certification I (FIRS 1301)



Credit: 3 semester credit hours (2 hours lecture, 4 hours lab)

Co-requisite: FIRS 1103, FIRS 1319, FIRS 1329, FIRS 1407, and FIRS 1433

Course Description¹

One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification II, IV, VI and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100.

Required Textbook and Materials

1. *Essentials of Fire Fighting and Department Operations* 6th Edition. Brady Publishing. Validated by IFSTA
 - a. ISBN-13: 978-0-13-314080-4
2. *Hazardous Materials for First Responders* 4th Edition. Published by: Fire Protection Publications, Oklahoma State University. Validated by IFSTA
 - a. ISBN: 978-0-87939-389-2

Course Objectives

Upon completion of this course, the student will be able to:

1. Demonstrate competencies, for subjects taught, set forth in the TCFP curriculum for Basic Fire Suppression found at

http://www.tcfp.state.tx.us/standards/curriculum_manual/chapter_1.pdf

101-1.00 The firefighter trainee shall identify state laws and rules related to health and safety.

101-2.00 The firefighter trainee shall describe the responsibilities of a firefighter relating to compliance with the provisions of occupational safety and health programs.

101-3.00 The firefighter trainee shall identify the correct laws and rules applicable to Basic Firefighter certification by the Texas Commission on Fire Protection.

101-4.00 The firefighter trainee shall identify the various levels of instructor certification by the Texas Commission on Fire Protection.

102-1.00 The firefighter trainee shall identify, safely carry, and describe how to use forcible entry tools safely.

103-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standard applicable to portable fire extinguishers.

¹ This course may be offered only by institutions licensed as a fire academy by the Texas Commission on Fire Protection

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104-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standard applicable to ropes.

105-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standards applicable to fire service ladders.

106-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standards applicable to fire service hose.

107-1.00 The firefighter trainee shall identify and describe the purpose of salvage and its value to the fire department and in public relations.

108-1.00 The firefighter trainee shall identify and describe the safety precautions necessary during overhaul.

109-1.00 The firefighter trainee shall identify, define, and demonstrate characteristics of fire streams.

110-1.00 The firefighter trainee shall identify and describe the principles, advantages, and effects of proper ventilation.

111-1.00 The firefighter trainee shall describe and demonstrate the proper techniques of searching for victims.

112-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standard applicable to fire prevention inspections.

113-1.00 The firefighter trainee shall describe the operation of fire hydrants, fully open and close fire hydrants, and identify the NFPA hydrant color code.

114-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standards applicable to fire protection systems.

115-1.00 The firefighter trainee shall identify and describe the process of combustion and define key terms associated with fire science.

116-1.00 The Firefighter trainee shall identify and be able to describe the purpose, goals, and definitions of the NFPA standards applicable to Hazardous Materials.

117-1.00 The firefighter trainee shall explain, identify, or demonstrate emergency service communication procedures.

118-1.00 The firefighter trainee shall describe the importance and purpose of communications between the fire department and the community.

119-1.00 The firefighter trainee shall define the following terms related to wildland fire suppression.

120-1.00 The firefighter trainee shall describe the purpose of the following NFPA standards applicable to SCBAs.

121-1.00 The firefighter trainee shall be able to describe the purpose of the following NFPA standards applicable to personal protective equipment.

122-1.00 The firefighter trainee shall be able to describe the purpose of the NFPA standard applicable to professional firefighters.

123-1.00 The firefighter trainee shall identify and describe the basic types of building construction and the general fire behavior expected with each type of construction.

124-1.00 The firefighter trainee shall identify and describe the general requirements, purpose, and definitions of the NFPA standard(s) applicable to Live Fire Training Evolutions.

125-1.00 The firefighter trainee shall identify the responsibilities of the firefighter which could assist in the subsequent investigation of a fire.

156-1.00 The firefighter trainee shall demonstrate procedures for testing fire hose.

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158-1.00 The firefighter trainee shall list and describe dangerous building conditions.

159-1.00 The firefighter trainee shall identify and define foam making appliances, and shall demonstrate a foam stream from each.

160-1.00 The firefighter trainee shall recognize the characteristics of ventilating a basement.

161-1.00 The firefighter trainee, operating as a member of a team, shall demonstrate the extrication of a victim from a vehicle.

162-1.00 The firefighter trainee shall identify the types of fire extinguishers in an occupancy and ensure that they conform to the fire prevention requirements for that occupancy.

163-1.00 The firefighter trainee shall identify and describe water systems and their fundamental components.

164-1.00 The firefighter trainee shall identify the features and characteristics of automatic sprinkler systems.

166-1.00 The firefighter trainee shall identify and be able to describe the purpose, goals, and definitions of the NFPA standards applicable to Hazardous Materials.

173-1.00 The firefighter trainee shall identify and describe the basic types of building construction and the general fire behavior expected with each type of construction.

174-1.00 The firefighter trainee shall extinguish or control live fires.

175-1.00 The firefighter trainee shall identify the methods for protecting evidence for fire cause determination.

176-1.00 The firefighter trainee shall identify and describe the purpose of an incident management system.

177-1.00 The firefighter trainee shall identify fire incident reporting systems.

178-1.00 The firefighter trainee shall identify and describe the benefits and components of pre-incident planning.

179-1.00 The firefighter trainee shall be able to describe various types of automotive fire apparatus, their functions, and their features.

180-1.00 The firefighter trainee shall identify various types of fire apparatus pumps and pump components, and shall identify their function(s), theory(s), and principle(s) of operation.

SCANS Skills and Competencies

Beginning in the late 1980's, the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS) conducted extensive research and interviews with business owners, union leaders, supervisors, and laborers in a wide variety of work settings to determine what knowledge workers needed in order to perform well on a job. In 1991 the Commission announced its findings in What Work Requires in Schools. In its research, the Commission determined that "workplace know-how" consists of two elements: foundation skills and workplace competencies.

Course Outline

The Texas Commission on Fire Protection determines the minimum course content.

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Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Evaluation

Completion of the Basic Firefighting Certification Academy leads to the issuance of a Certificate of Completion. The full-time BFFC consists of six separate course designations which are conducted concurrently – FIRS 1301, FIRS 1319, FIRS 1329, FIRS 1407, FIRS 1433 and FIRS 1103. The second digit from the left denotes the number of semester hour credits per course.

Cadets receive one academic grade which is identical for each of the five core academy courses (FIRS 1301, FIRS 1319, FIRS 1329, FIRS 1407, and FIRS 1433). FIRS 1103 Firefighter Agility and Fitness Preparation, is the physical fitness component of the academy and the cadet will receive a separate grade for that course. Successful completion of the BFFC results in the graduate receiving 18 college credit hours. These courses are used in computing the cadet's Grade Point Average.

EXAMS

Exams will be announced in advance.

- ◆ Pop quizzes may be given at any time; you should be prepared at all times.
- ◆ Student Workbooks are expected to be completed by all Cadets (these will be picked up periodically to see if you are working on them and assigned a grade at the end of the academy)
- ◆ Each student will be assigned a topic for writing a research paper.
- ◆ A comprehensive final examination will be given at the end of the academy. Passing of the final is **MANDATORY**. In order to be eligible to sit for the Final Exam, all absences are to be completed and all LIT financial obligations must be met prior to the date of the exam.

ASSIGNMENTS

Each Cadet will be expected to satisfactorily participate in and complete all assignments and examinations given in the course attended.

- ◆ Homework and/or remedial work will be assigned and must be satisfactorily completed by the assigned date and time. Failure to complete work assignments will be considered insubordination and will be referred for disciplinary action.

GRADING

- ◆ The minimum passing grade on written exams shall be a grade of 75.
- ◆ Cadets failing to achieve an average of 75 upon completion of the first three exams are subject to dismissal from the academy.

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- ◆ Cadets failing to maintain a 75 average at any time during the academy will be placed on Academic Probation and afforded the next two tests to demonstrate academic competence. A Cadet failing to successfully pass those two tests may be dismissed from the academy.
- ◆ Course Grade:

a. Live Fire Evaluations	5%
b. Exams	60%
c. Research Paper	10%
d. Physical Training	5%
e. Final Exam	<u>20%</u>
f. Final Course Grade	100%
- ◆ All examinations and research papers become the property of the academy.

Late Penalties (5 points per day) will be assessed on all work turned in late.

Course Requirements

NOTEBOOKS

- a. Notebooks should be maintained by each Cadet. Some handout material will be available, but Cadets should not depend on handouts to replace notes, only to supplement them.
- b. Notes should cover all subjects taught. Notes should be of such quantity and quality that the Cadet or anyone else would be able to refer to them and recall the subject matter.
- c. All notes should be transcribed and placed in the notebook. Each subject should be separated from the other subjects by dividers, and a Table of contents established for easy reference.
- d. There should not be any foreign materials in the notebook (items from other classes, departments, schools, etc.) non-pertinent drawings, or obscene materials.

STUDENT WORKBOOK

Student Workbooks are to be completed by each Cadet.

1. Submit answers to the Brigade Member in Action scenarios for each chapter.
2. Complete the chapter quizzes.
3. Research, write, and submit a paper on assigned topic.
4. Participate in student-to-student-to-instructor activity (discussions regarding Voices of Experience articles included in selected chapters).
5. Sit for a comprehensive final exam.

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Attendance Policy

1. Missing more than 40 academy hours will result in an automatic “F” for the course.
2. Absences are counted for unexcused, excused and coming to class late.
3. Missing more than 1 ½ hours of an academy class will count as an absence.
4. Being tardy 3 times equals 1 absence.
5. Students enrolled in an online offering of this course must log-in at least once per week or will be counted as absent. Three absences will result in an “F” for the course.

Course Policies

Course policies are included in the comprehensive LIT Regional Fire Academy Handbook. Each student will receive either a printed or digital copy of the handbook.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Course Schedule (Sample)

Class Day	Start Time	End Time	Hrs Trng	Subject/ Curriculum Number	Subject
1	7:30	16:30	8	101	Admin/TCFP & LIT R&R/CPAT Orientation/Research Paper Assgmnts
2	7:30	16:30	8	115	Fire Science/Behavior
2	16:30	17:30	1	PFT	Physical Fitness Evaluation
3	7:30	16:30	8	115	Fire Science/Behavior
4	7:30	16:30	8	176	NIMS & ICS
4	16:30	17:30	1	PFT	Physical Fitness Training
5	7:30	16:30	8	176	NIMS & ICS
5	16:30	17:30	1	PFT	Physical Fitness Training
6	7:30	16:30	8	121	Personal Protective Equipment (PPE)
6	16:30	17:30	1	PFT	Physical Fitness Training
7	7:30	16:30	8	120	SCBA
7	16:30	17:30	1	PFT	Physical Fitness Training
8	7:30	16:30	8	120	SCBA
9	7:30	16:30	8	104	SCBA (Skills Testing)

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Class Day	Start Time	End Time	Hrs Trng	Subject/ Curriculum Number	Subject
9	16:30	17:30	1	PFT	Physical Fitness Training
10	7:30	16:30	8	122	Firefighter Safety & Orientation
11	7:30	16:30	8	122	Firefighter Safety & Orientation
11	16:30	17:30	1	PFT	Physical Fitness Training
12	7:30	16:30	8	122	Firefighter Safety & Orientation
13	7:30	16:30	8	122	Firefighter Safety & Orientation (Skills Testing)
14	7:30	16:30	8	123	Building Construction
14	16:30	17:30	1	PFT	Physical Fitness Training
15	7:30	16:30	8	113	Water Supply
15	16:30	17:30	1	PFT	Physical Fitness Training
16	7:30	16:30	8	111	Search & Rescue
16	16:30	17:30	1	PFT	Physical Fitness Training
17	7:30	16:30	8	120/111	SCBA's (Smoke House)
18	7:30	16:30	8	PFT/121/120	CPAT 2nd Orientation/Skills Practice - PPE & SCBA
19	7:30	16:30	8	111	Search & Rescue
19	16:30	17:30	1	PFT	Physical Fitness Training
20	7:30	16:30	8	106	Fire Service Hose
20	16:30	17:30	1	PFT	Physical Fitness Training
21	7:30	16:30	8	106	Fire Service Hose
21	16:30	17:30	1	PFT	Physical Fitness Training
22	7:30	16:30	8	156	Fire Service Hose (Skills Testing)
23	7:30	16:30	8	109	Fire Streams
23	16:30	17:30	1	PFT	Physical Fitness Training
24	7:30	16:30	8	117	Emergency Services Communications
24	16:30	17:30	1	PFT	Physical Fitness Training
25	7:30	16:30	8	105	Fire Service Ground Ladders
25	16:30	17:30	1	PFT	Physical Fitness Training
26	7:30	16:30	8	105	Fire Service Ground Ladders
26	16:30	17:30	1	PFT	Physical Fitness Training
27	7:30	16:30	8	105	Fire Service Ground Ladders & Aerial Climb
28	7:30	16:30	8	107	Fire Service Salvage
28	16:30	17:30	1	PFT	Physical Fitness Training
29	7:30	16:30	8	108/158	Fire Service Overhaul
29	16:30	17:30	1	PFT	Physical Fitness Training
30	7:30	16:30	8	102	Firefighter Tools & Equipment
30	16:30	17:30	1	PFT	Physical Fitness Training
31	7:30	16:30	8	102	Forcible Entry

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Class Day	Start Time	End Time	Hrs Trng	Subject/ Curriculum Number	Subject
31	16:30	17:30	1	PFT	Physical Fitness Training
32	7:30	16:30	8	110	Ventilation
33	7:30	16:30	8	110	Ventilation
33	16:30	17:30	1	PFT	Physical Fitness Training
34	7:30	16:30	8	160	Ventilation (Skills Testing)
34	16:30	17:30	1	PFT	Physical Fitness Training
35	7:30	16:30	8	111	CPAT 3rd Orientation & Practice & Skills Practice
36	7:30	16:30	8	124/174	Fire Control: Response & Scene Size Up
36	16:30	17:30	1	PFT	Physical Fitness Training
37	7:30	16:30	8	124/174	Fire Control: Response & Scene Size Up
38	7:30	16:30	8	124/174	Fire Control: Fire Suppression
38	16:30	17:30	1	PFT	Physical Fitness Training
39	7:30	16:30	8	110/160	Ventilation/Forcible Entry Houses
40	7:30	16:30	8	103	Portable Fire Extinguishers (Skills Testing)
40	16:30	17:30	1	PFT	Physical Fitness Training
41	7:30	16:30	8	104	Ropes, Knots & Hitches
41	16:30	17:30	1	PFT	Physical Fitness Training
42	7:30	16:30	8	161	Rescue
43	7:30	17:30	8	161	Rescue
43	16:30	17:30	1	PFT	Physical Fitness Training
44	7:30	16:30	8	161	Rescue (Skills Testing)
44	16:30	17:30	1	PFT	Physical Fitness Training
45	7:30	16:30	8	161	Rescue (Skills Testing)
45	16:30	17:30	1	PFT	Physical Fitness Training
46	7:30	16:30	8	161	Vehicle Extrication
47	7:30	16:30	8	107/106	Skills Practice & Testing - S & O and Hose
48	7:30	16:30	8	FIRS	Driving Practices
48	16:30	17:30	1	PFT	Physical Fitness Training
49	7:30	16:30	8	FIRS	Pump Operations
49	16:30	17:30	1	PFT	Physical Fitness Training
50	7:30	16:30	8	119	Wildland Fire Suppression
50	16:30	17:30	1	PFT	Physical Fitness Training
51	7:30	16:30	8	119	Wildland Fire Suppression Skills
52	7:30	16:30	8	161	Transportation Emergencies
53	7:30	16:30	8	PFT/FIRS	CPAT 4th Practice & Skills Practice
54	7:30	16:30	8	124	Live Fire Training (Flashover)
55	7:30	16:30	8	125/175	Fire Cause
55	16:30	17:30	1	PFT	Physical Fitness Training

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Class Day	Start Time	End Time	Hrs Trng	Subject/ Curriculum Number	Subject
56	7:30	16:30	8	112	Inspections/Fire Prevention Education
56	16:30	17:30	1	PFT	Physical Fitness Training
57	7:30	16:30	8	124	Live Fire Training
58	7:30	16:30	8	124	Live Fire Training
59	7:30	16:30	8	118/177	Public Relations, Reports & Records
60	7:30	16:30	8	112	Inspections/Fire Prevention Education
60	16:30	17:30	1	PFT	Physical Fitness Training
61	7:30	16:30	8	124	Live Fire Training (Skills Testing)
61	16:30	17:30	1	PFT	Physical Fitness Training
62	7:30	16:30	8	124	Live Fire Training (Skills Testing)
63	7:30	16:30	8	159	Foam Fire Streams (Skills Testing)
64	7:30	16:30	8	174	Night Live Fire Training
65	7:30	17:30	8	178	Pre-incident Planning/Research Projects Due
66	7:30	13:30	5	PFT	CPAT Test
67	7:30	16:30	8	116	HazMat Awareness
68	7:30	16:30	8	116	HazMat Awareness
69	7:30	16:30	8	166	HazMat Operations
70	7:30	16:30	8	166	HazMat Operations
71	7:30	16:30	8	166	Response to Terrorism & Operations Skills
72	7:30	16:30	8	114	Fire Protection Systems
73	7:30	16:30	8	164	Fire Protection Systems (Skills Testing)
74	7:30	16:30	8	FIRS	Final Exam/Skills Practice
75	7:30	16:30	8	TCFP	TCFP State Certification Testing
	1800	2100		LIT	Commencement @ Montagne Center
				(Total Hours may vary)	
634					