



**LAMAR INSTITUTE  
OF TECHNOLOGY**

## Firefighter Certification II FIRS1407

### **INSTRUCTOR CONTACT INFORMATION**

Instructor: John Randall  
Email: jwrandall@lit.edu  
Office Phone: 409 344-1997  
Office Location: Fire Training Ground  
Office Hours: 8 am – 5 pm

### **CREDIT**

4 Semester Credit Hours (3 hours lecture, 2 hours lab)

### **MODE OF INSTRUCTION**

Face to Face

### **PREREQUISITE/CO-REQUISITE:**

FIRS 1319, FIRS 1433, FIRS 1407, FIRS 1329, and FIRS 1301.

### **COURSE DESCRIPTION**

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

### **COURSE OBJECTIVES**

Upon completion of this course, the student will be able to 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](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.

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.

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.

1. 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.

### **REQUIRED TEXTBOOK AND MATERIALS**

- *Fundamentals of Fire Fighting Skill, 4<sup>th</sup> Edition*
  1. 9781284144017
  2. *Hazardous Materials for First Responders 5<sup>th</sup> Edition*. Published by: Fire Protection Publications, Oklahoma State University. Validated by IFSTA
  3. ISBN: 978-0-8793939-613-8

### **ATTENDANCE POLICY**

**(1) Cadets are expected to attend all classes. The academy staff will maintain an accurate record of attendance. Cadets are considered absent if they are not participating in the course as it is designed. Examples include cadets removed from class for disciplinary reasons or cadets unable to participate in Physical Training (whatever the reason).**

**(2) Cadets are not to leave the BEST Complex without prior approval from the Coordinator or Staff, except during lunch breaks. Cadets leaving class or the BEST Complex without permission are considered absent without leave, and shall face disciplinary action.**

**(3) Only the Coordinator or Instructors may authorize a cadet to leave the BEST Complex prior to the end of the training day. In the event such authorization is given, the cadet shall report to the Academy Coordinator's Office prior to leaving, and upon returning.**

**(4) No cadet can miss more than thirty-two (32) hours of class time, no matter what the reason, in order to qualify to receive a course completion certificate. Whether an absence is excused is solely at the discretion of the Academy Coordinator, however, only those absences that are unavoidable (i.e. illness, family death, act of God) are generally considered to be excused.**

**(5) Cadets may not miss more than five (5) Physical Fitness Training sessions, regardless of the reason. This includes missing due to injury. Any PT Instructor may remove a Cadet**

from training and require that Cadet to provide a Medical Release before being allowed to resume.

(6) Cadets who are absent due to illness must be seen by a physician and must bring a completed and signed Medical Release Form upon returning to the Academy.

(7) All absences shall be made-up. It will be the responsibility of each Cadet to arrange for make-up work and it is each cadet's responsibility to maintain an accurate log of make-up time. A cadet who has not made-up all excused absence time will not receive an endorsement of eligibility to take the certification exam and will not graduate until all such time has been made-up. If the time is not made up prior to the LIT scheduled state certification exam, the cadet will receive a grade of "F" and will not be given an endorsement of eligibility.

(8) Whenever a cadet is not present at the beginning of the training day or the resumption of training following a lunch break, that cadet is considered to be tardy. Tardiness beyond fifteen minutes is considered to be an absence.

(9) Any cadet who is late will be subject to disciplinary action by the Instructor of the day. A third instance of tardiness will result in counseling and notation in the cadet's file. A fourth instance will result in written warning. A fifth instance can result in immediate dismissal.

(10) Students arriving for or returning late to class are to report in at the Administration Office before entering the classroom. The Academy Coordinator will determine if absences due to tardiness are excused or unexcused. Cadets shall make every effort to notify the Academy Coordinator prior to any absence or tardiness.

(11) Class times are subject to change or modification. Generally, changes in class hours will be announced as far in advance as possible.

(12) Training may extend beyond the normal time of dismissal. No cadet may leave training until properly dismissed.

(13) Cadets wishing to leave training to use the restroom should wait, if possible, until the next scheduled break.

#### **DROP POLICY**

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the [Academic Calendar](#). If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

#### **STUDENT EXPECTED TIME REQUIREMENT**

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students

should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

**COURSE CALENDAR**

DATE	TOPIC	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)

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)
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

<b>Class Day</b>	<b>Start Time</b>	<b>End Time</b>	<b>Hrs Trng</b>	<b>Subject/ Curriculum Number</b>	<b>Subject</b>
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

<b>Class Day</b>	<b>Start Time</b>	<b>End Time</b>	<b>Hrs Trng</b>	<b>Subject/ Curriculum Number</b>	<b>Subject</b>
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
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



<b>Class Day</b>	<b>Start Time</b>	<b>End Time</b>	<b>Hrs Trng</b>	<b>Subject/ Curriculum Number</b>	<b>Subject</b>
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
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



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.

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### **GRADING SCALE**

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

LIT does not use +/- grading scales

### **ACADEMIC DISHONESTY**

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at <http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty>.

### **TECHNICAL REQUIREMENTS**

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

### **DISABILITIES STATEMENT**

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of

Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email [specialpopulations@lit.edu](mailto:specialpopulations@lit.edu). You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

### **STUDENT CODE OF CONDUCT STATEMENT**

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at [www.lit.edu](http://www.lit.edu). Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

### **STARFISH**

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

### **ADDITIONAL COURSE POLICIES/INFORMATION**

Insert additional course policies/information specific to your section here. Example: Instructor Response Time, Participation Requirement, Late Work