# Scope & Sequence

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| Course Name: Firefighter II **TSDS PEIMS Code:** 13030000 | | | **Course Credit:** 3.0  **Course Requirements:** Grade Placement: 11-12.  **Prerequisites:** Firefighter I.  **Recommended Prerequisites:** Principles of Law, Public Safety, Corrections, and Security. |
| **Course Description:** Firefighter II is the second course in a series for students studying firefighter safety and development. Students will understand Texas Commission on Fire Protection rules and regulations, proper incident reporting and records, proper use of personal protective equipment, and the principles of fire safety. Students will demonstrate proper use of fire extinguishers, ground ladders, fire hoses, and water supply apparatus systems. | | | |
| **NOTE:** This is a suggested scope and sequence for the course content. This content will work with any textbook or instructional materials. If locally adapted, make sure all TEKS are covered. | | | |
| **Total Number of Periods**  **Total Number of Minutes**  **Total Number of Hours** | 525 Periods  23,625 Minutes  393.75 Hours | \*Schedule calculations based on 175/180 calendar days. For 0.5 credit courses, schedule is calculated out of 88/90 days. Scope and sequence allows additional time for guest speakers, student presentations, field trips, remediation, extended learning activities, etc. | |
| **Unit Number, Title, and Brief Description** | **# of Class Periods\***  (assumes 45-minute periods)  Total minutes per unit | **TEKS Covered**  **130.335. (c) Knowledge and skills.** | |
| **Unit 1: Professional Standards and Employer Expectations**  This unit is designed to inform future LPSCS students about industry expectations for employability skills and professional standards. Classroom discussions will include appropriate timelines and strategies for various levels of certification, ethical uses of technology, and the importance of working toward personal/team goals every day. | 10 Periods  450 Minutes | (1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to achieve business and industry employability skills standards such as attendance, on-time arrival, meeting deadlines, working toward personal/team goals every day, and ethical use of technology. | |
| **Unit 2: Information Applications for Fire Science**  Students working in fire science will need to understand all of the latest technology when responding to a variety of emergency situations. The technology will include radio transmissions and all related computer technology. In addition, this unit also covers specialized IT skills related to fire science management. Students will practice and demonstrate use of word-processing and spreadsheet software as well as learn and use information technology applications as they pertain to fire management situations. | 50 Periods  2,250 Minutes | (2) The student uses information technology applications as they pertain to fire management situations. The student is expected to:  (A) apply protocols for managing emergency situations using radio equipment, computer technology, and public address and warning systems; and  (B) demonstrate use of word-processing and spreadsheet software in fire management services. | |
| **Unit 3: Responding to Emergencies**  Fire science workers are exposed to a wide variety of emergency situations. In this unit students will explore and practice their duties in simulations aligned with the types of incidents they are expected to respond to. Students will also analyze and discuss their response procedures using identified protocols. | 60 Periods  2,700 Minutes | (3) The student evaluates behaviors, strategies, and protocols that demonstrate an understanding of duties while responding to a variety of emergency incidents. The student is expected to:  (A) identify response procedures to emergency incidents; and  (B) apply response procedures to simulated emergency incidents. | |
| **Unit 4: Fire Extinguishers**  The “science” in fire science has much to do with the application and understanding of tools used to extinguish fires. In this unit students will familiarize themselves with the various types of extinguishers, the different classifications of fires and which extinguisher is best for each type of fire. Students will also describe and demonstrate the operation of fire extinguishers using Pull Aim Squeeze Sweep (PASS) and identify the classification of types of fires as they relate to the use of portable fire extinguishers and the materials involved in each class of fire. | 75 Periods  3,375 Minutes | (4) The student describes the characteristics and applications for the classes of extinguishers. The student is expected to:  (A) identify the classification of types of fires as they relate to the use of portable fire extinguishers and the materials involved in each class of fire;  (B) identify the appropriate fire extinguisher for each class of fire;  (C) identify and describe fire extinguisher characteristics and operations; and  (D) describe and demonstrate the operation of fire extinguishers using Pull Aim Squeeze Sweep (PASS). | |
| **Unit 5: Fire Service Ground Ladders**  Just as fire extinguishers are complicated and specialized so are the ground ladders fire fighters must use. At the completion of this unit students will understand the National Fire Protection Association standards applicable to fire service ground ladders. Students will properly use various ladders in a safe manner, describe and demonstrate inspection and maintenance procedures for different types of ground ladders and describe procedures for conducting an annual service test on ground ladders, and explain and demonstrate proper ladder climbing techniques while transporting tools and equipment or assisting a person with a simulated injury. | 75 Periods  3,375 Minutes | (5) The student explains the purpose of the National Fire Protection Association standards applicable to fire service ground ladders. The student is expected to:  (A) identify the materials used in ladder construction and the features;  (B) describe and demonstrate inspection and maintenance procedures for different types of ground ladders and describe procedures for conducting an annual service test on ground ladders;  (C) identify the load capacities for ground ladders;  (D) identify and select a ladder for a given task;  (E) demonstrate raising and positioning ground ladders;  (F) describe and demonstrate securing a ladder;  (G) explain and demonstrate proper ladder climbing techniques while transporting tools and equipment or assisting a person with a simulated injury; and  (H) demonstrate the deployment of a roof ladder on a pitched roof. | |
| **Unit 6: Understanding Fire Hoses**  The National Fire Protection Association standards addresses fire hoses. In this unit students will gain an in-depth knowledge of the types of hoses and skills required for firefighters to safely and efficiently use them. Students will also learn proper care and maintenance as well as demonstrate how to connect and use them. | 70 Periods  3,150 Minutes | (6) The student describes the purpose of the National Fire Protection Association standards applicable to fire service hoses and reviews the procedures for care, maintenance, and inspection of fire hoses, couplings, nozzles, and water valves. The student is expected to:  (A) identify and describe the use and construction of fire hoses and couplings;  (B) explain the application of each size and type of hose on a pumper as required to be carried by National Fire Protection Association 1901;  (C) demonstrate the methods of connecting fire hose couplings;  (D) demonstrate the one- and two-person methods of connecting, dismantling, and rolling various sizes of hose lines;  (E) demonstrate advancing dry hose lines and charged attack lines of different sizes;  (F) demonstrate methods of hose load finishes;  (G) describe and demonstrate extending a section of hose and replacing damaged sections of hose using proper safety equipment such as clothing for performing overhaul activities; and  (H) describe the methods of washing and drying a fire hose. | |
| **Unit 7: Producing Effective Fire Streams**  Understanding fire streams and being able to produce them takes skill and practice. In this unit students will learn and then demonstrate those skills using various nozzles and other appliances. Students will also identify the type, design, operation, required nozzle pressure, and flow of a given selection of nozzles and tips as well as identify terms relating to the principles of fire service hydraulics. | 65 Periods  2,925 Minutes | (7) The student explains requirements for the production of effective fire streams. The student is expected to:  (A) identify, define, and demonstrate characteristics of fire streams;  (B) identify the type, design, operation, required nozzle pressure, and flow of a given selection of nozzles and tips;  (C) demonstrate the proper use of nozzles, hose appliances, water valves, adapters, and tools;  (D) identify various types of nozzles and their components; and  (E) identify terms relating to the principles of fire service hydraulics. | |
| **Unit 8: Understanding Water Supply Sources**  Understanding water sources and how to move water from the source to the fire is important knowledge all firefighters need. Students in this unit will explore fire hydrants, how they operate, the various types of hydrants and how to use them safely. Students will also identify the National Fire Protection Association hydrant color code, describe making a hydrant-to-pumper connection, explain the hazards involved when the hydrant-to-pumper connection is not properly sealed, and describe the apparatus, equipment, and appliances required to provide water at rural locations. | 65 Periods  2,925 Minutes | (8) The student identifies water supply sources and methods to move water from the supply source to the fire. The student is expected to:  (A) describe the operation of fire hydrants such as fully opened fire hydrants and closed fire hydrants;  (B) identify the National Fire Protection Association hydrant color code;  (C) describe making a hydrant-to-pumper connection;  (D) explain the hazards involved when the hydrant-to-pumper connection is not properly sealed; and  (E) describe the apparatus, equipment, and appliances required to provide water at rural locations. | |
| **Unit 9: After a Fire**  Understanding the protocol of what a firefighter needs to know and do after a fire is almost as important as putting the fire out. This unit covers those post fire duties, which include handling debris, determining the cause, restoring the premises, and security surveillance during and after the fire. | 55 Periods  2,475 Minutes | (9) The student explains the duties of a firefighter after a fire. The student is expected to:  (A) explain how debris is handled from fires, including house fires and chemical fires;  (B) describe the duties for gathering information that may lead to the determination of the fire cause;  (C) identify the proper procedure for restoration of the premises after a fire; and  (D) describe the duties for fire and security surveillance during and after the fire. | |