Virginia CTE

Firefighting 1 (8705 - 36 weeks)

Firefighting 1 (8705/36 weeks) FF

1. **Demonstrate creativity and innovation.** FF.1
2. **Demonstrate critical thinking and problem solving.** FF.2
3. **Demonstrate initiative and self-direction.** FF.3
4. **Demonstrate integrity.** FF.4
5. **Demonstrate work ethic.** FF.5
6. **Demonstrate conflict-resolution skills.** FF.6
7. **Demonstrate listening and speaking skills.** FF.7
8. **Demonstrate respect for diversity.** FF.8
9. **Demonstrate customer service skills.** FF.9
10. **Collaborate with team members.** FF.10
11. **Demonstrate big-picture thinking.** FF.11
12. **Demonstrate career- and life-management skills.** FF.12
13. **Demonstrate continuous learning and adaptability.** FF.13
14. **Manage time and resources.** FF.14
15. **Demonstrate information-literacy skills.** FF.15
16. **Demonstrate an understanding of information security.** FF.16
17. **Maintain working knowledge of current information-technology (IT) systems.** FF.17
18. **Demonstrate proficiency with technologies, tools, and machines common to a specific occupation.** FF.18
19. **Apply mathematical skills to job-specific tasks.** FF.19

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20 **Demonstrate professionalism.** FF.20

21 **Demonstrate reading and writing skills.** FF.21

22 **Demonstrate workplace safety.** FF.22

23 **Examine aspects of planning within an industry/organization.** FF.23

24 **Examine aspects of management within an industry/organization.** FF.24

25 **Examine aspects of financial responsibility within an industry/organization.** FF.25

26 **Examine technical and production skills required of workers within an industry/organization.** FF.26

27 **Examine principles of technology that underlie an industry/organization.** FF.27

28 **Examine labor issues related to an industry/organization.** FF.28

29 **Examine community issues related to an industry/organization.** FF.29

30 **Examine health, safety, and environmental issues related to an industry/organization.** FF.30

31 **Identify the purposes and goals of the student organization.** FF.31

32 **Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.** FF.32

33 **Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects.** FF.33

34 **Identify Internet safety issues and procedures for complying with acceptable use standards.** FF.34

35 **Identify the types of work-based learning (WBL) opportunities.** FF.35

36 **Reflect on lessons learned during the WBL experience.** FF.36

37 **Explore career opportunities related to the WBL experience.** FF.37

38 **Participate in a WBL experience, when appropriate.** FF.38

39 **Identify common causes of death in the fire service.** FF.39

40 **Identify causes of back injuries and methods for preventing them.** FF.40

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Identify slip, trip, and fall injuries and methods for preventing them. FF.41

42 **Outline the physical fitness standards for firefighters.** FF.42

43 **Identify classroom safety rules and procedures.** FF.43

44 **Define risk management.** FF.44

45 **Identify the features of conducting an organized rapid escape.** FF.45

46 **Identify procedures to follow when an entrapment occurs.** FF.46

47 **Identify the importance of the NFPA standards to the fire service.** FF.47

48 **Identify first-aid terms and abbreviations.** FF.48

49 **Demonstrate techniques for controlling bleeding.** FF.49

50 **Demonstrate methods for detecting and caring for those in shock.** FF.50

51 **Care for those with the various classifications of burns.** FF.51

52 **Demonstrate treatment for musculoskeletal injuries.** FF.52

53 **Demonstrate treatment for environmental emergencies.** FF.53

54 **Identify the types, symptoms, and treatments of poisoning.** FF.54

55 **Demonstrate care for conscious and unconscious patients until proper care arrives.** FF.55

56 **Assess scene safety for the rescuer and the patient.** FF.56

57 **Demonstrate removal of a foreign body airway obstruction.** FF.57

58 **Demonstrate one- and two-rescuer CPR.** FF.58

59 **Operate an automated external defibrillator (AED).** FF.59

60 **Demonstrate rescue breathing.** FF.60

61 **Define the firefighter,Äôs function and responsibilities.** FF.61

62 **Write a mission statement for the fire service.** FF.62

63 **Describe the history of the fire service.** FF.63

64 **Outline the organizational structure of the fire service.** FF.64

65 **Describe the effects of the Civil Rights Act of 1991 and the Americans with Disabilities Act (ADA) on the employment and supervision of firefighters.** FF.65

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List rules and laws that regulate the fire service. FF.66

67 **Identify standard operating procedures (SOPs) and standard operating guides (SOGs) in the fire service.** FF.67

68 **Develop an organizational chart for the National Incident Management System (NIMS).** FF.68

69 **List the allied agencies that assist with fire department operations.** FF.69

70 **Describe employee assistance programs.** FF.70

71 **Compare engine, truck, and rescue/squad company operations and responsibilities.** FF.71

72 **Define fire and its characteristics.** FF.72

73 **Describe the fire tetrahedron and its importance in the suppression of fire.** FF.73

74 **Identify sources of heat energy.** FF.74

75 **Describe the burning process, the transmission of heat, and the products of combustion.** FF.75

76 **Explain key terms related to fire behavior.** FF.76

77 **Identify the conditions that require the use of SCBA and full PPE.** FF.77

78 **Identify the components of SCBA and PPE.** FF.78

79 **Demonstrate proper use, inspection, and maintenance of SCBA and PPE.** FF.79

80 **Demonstrate emergency procedures in the event of SCBA malfunction or failure.** FF.80

81 **Define the relationship between PPE and national standards and regulations.** FF.81

82 **Don and doff PPE within the recommended guidelines of the NFPA.** FF.82

83 **Describe building construction methods and materials.** FF.83

84 **Define the five types of building construction and their associated hazards.** FF.84

85 **Predict a fire,Äôs growth and development according to type of building construction.** FF.85

86 **Identify indications of potential building collapse and collapse-zone evacuation procedures.** FF.86

List procedures for citizens to report an emergency. FF.87

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88 **Describe the local fire department‚Äôs emergency response procedures.** FF.88

89 **Identify methods of receiving reports.** FF.89

90 **Describe business and personal phone procedures.** FF.90

91 **Perform radio communications.** FF.91

92 **Identify the value of and need for protective systems to help preserve life and property.** FF.92

93 **Identify types, components, and valve types of sprinkler systems.** FF.93

94 **Halt the flow of water from an automatic sprinkler head.** FF.94

95 **Describe the methods used to return a sprinkler system to service.** FF.95

96 **Identify standpipe systems and connections.** FF.96

97 **Describe the value of sprinkler systems to on-the-scene firefighting.** FF.97

98 **Locate sprinkler connections.** FF.98

99 **Describe types and uses of fire streams and hoses.** FF.99

100 **Operate various fire streams.** FF.100

101 **List the fundamental components of a modern water system.** FF.101

102 **List causes of friction loss in water mains.** FF.102

103 **Compare wet-barrel and dry-barrel hydrants.** FF.103

104 **Operate a hydrant.** FF.104

105 **Describe alternative static water sources.** FF.105

106 **Connect a fire department pump to a water supply.** FF.106

107 **Describe the procedures for loading and off-loading a mobile water supply apparatus.** FF.107

108 **Identify techniques for rolling, repacking, and deploying hose lines.** FF.108

109 **Identify use and maintenance of a fire hose.** FF.109

110 **Describe fire-extinguishment theory.** FF.110

111 **Outline fire-suppression techniques and measures.** FF.111

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112 **Describe utility control and rescue operations involving electrical hazards.** FF.112

113 **Describe the classifications of fire and their corresponding extinguishment methods.** FF.113

114 **Identify types of foam for fire suppression.** FF.114

115 **Demonstrate the suppression of Class A and Class B fires, using a hose line.** FF.115

116 **Demonstrate the suppression of Class A, B, and C fires, using portable fire extinguishers.** FF.116

117 **Identify the types and ratings of portable fire extinguishers.** FF.117

118 **Identify the extinguishment theory for fighting wildland fires.** FF.118

119 **Identify ladder types, parts, and safety features.** FF.119

120 **Perform ladder carries.** FF.120

121 **Perform ladder raises.** FF.121

122 **Describe maintenance, cleaning, and inspection procedures for ladders.** FF.122

123 **Differentiate between types of ropes and knots.** FF.123

124 **Demonstrate the types of knots required for hoisting or securing.** FF.124

125 **Describe maintenance, cleaning, and inspection functions for life-safety and utility rope.** FF.125

126 **Identify types of forcible entry tools.** FF.126

127 **Demonstrate methods for forcing windows and doors.** FF.127

128 **Describe maintenance, cleaning, and inspection functions for forcible-entry tools.** FF.128

129 **Describe methods, components, and considerations of forcible entry.** FF.129

130 **Identify hazards associated with types of rescue situations.** FF.130

131 **Demonstrate victim-extrication, victim-lifting, and victim-movement processes.** FF.131

132 **Conduct primary and secondary searches in a structure.** FF.132

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Describe the need for ventilation at a fire scene. FF.133

134 **Identify the types of ventilation.** FF.134

135 **Demonstrate methods for creating horizontal, vertical, mechanical, and hydraulic ventilation.** FF.135

136 **Set up portable power plants and lighting equipment.** FF.136

137 **Describe salvage and overhaul needs and techniques.** FF.137

138 **Describe the need for evidence preservation.** FF.138

139 **Identify methods for legally securing a building after emergency operations are complete.** FF.139

140 **Demonstrate use of salvage covers to protect property.** FF.140

141 **Describe maintenance, cleaning, and inspection functions for salvage and overhaul.** FF.141

142 **Identify basic HAZMAT standards and resources for handling an incident.** FF.142

143 **Identify hazardous materials that may be involved in terrorist attacks.** FF.143

144 **Describe procedures for responding to a terrorist attack.** FF.144

145 **Explain the programs, actions, and services that prevent the loss of life and property associated with fire and other risks to the community.** FF.145

146 **Deliver a fire-safety education presentation.** FF.146

147 **Research NFPA certification options and regional education opportunities.** FF.147