

**FIRE SERVICE, 43.0200.00**

An Industry Standards Validation Committee developed and approved these standards on March 15, 2016. They align with the NFPA Standard for Fire Fighter Professional Qualifications in preparation for the Firefighter I Certification. Students may also be eligible for the Emergency Medical Technician certification, CPR certification, First Aid Certification and completion of the Hazardous Materials First Responder NFPA 472 and the Wildland S130/190. The Arizona Career and Technical Education Quality Commission, the validating authority for the Arizona Skills Standards Assessment System and the end-of-program assessments, certificates and transcripts, endorsed these standards on May 12, 2016. The first testing date for the end-of-program assessment for Fire Service using the new standards is Fall 2016.

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**STANDARD 1.0 EXAMINE THE ORGANIZATION AND STRUCTURE OF FIRE SERVICE**

- 1.1 Explain fire service ( e.g., history, mission, culture and organization)
- 1.2 Diagram an organizational chart for a fire department
- 1.3 Describe standard operating procedures and policies for the fire department
- 1.4 Describe the fire agency's interactions with other community agencies
- 1.5 Describe the responsibility of the risk manager/manager of public safety in a fire department
- 1.6 Research occupational trends, career tracks and employment opportunities in fire service
- 1.7 Research common firefighter injuries and fatalities
- 1.8 Describe safety standards related to fire service (e.g., NFPA 1500 and OSHA)
- 1.9 Practice appropriate safety precautions in fire stations and facilities
- 1.10 Practice personal safety in learning and training

**STANDARD 2.0 EXAMINE PERSONAL RESPONSIBILITY FOR HEALTH AND WELLNESS**

- 2.1 Analyze sources of stress, including fire service related crises and identify strategies to manage stress
- 2.2 Evaluate health-compromising risk behaviors on the job and in personal life and identify successful prevention and intervention techniques
- 2.3 Describe various fire service health and wellness programs and Employee Assistance Programs (EAP)
- 2.4 Identify functional exercises specific for firefighters (e.g., warm-up, flexibility and core strength exercises; cardiovascular exercises; and functional training exercises)
- 2.5 Exhibit physical well-being through good nutrition and a personal fitness plan including exercises appropriate to firefighters
- 2.6 Identify components of a common physical fitness (e.g., muscular strength, muscular endurance, cardiovascular endurance, flexibility, body fat composition)
- 2.7 Complete a physical ability assessment

**STANDARD 3.0 DEMONSTRATE THE PROPER USE AND MAINTENANCE OF FIREFIGHTING PERSONNEL PROTECTIVE EQUIPMENT (PPE)**

- 3.1 Identify various protective equipment that comprises the firefighter's ensemble
- 3.2 Demonstrate the care of personal protective equipment
- 3.3 Demonstrate donning and doffing of PPE within one minute
- 3.4 Identify the components of a self-contained breathing apparatus (SCBA)
- 3.5 Describe respiratory hazards and when SCBA "shall be used"
- 3.6 Practice donning and doffing SCBA
- 3.7 Explain the principles of air management consistent with NFPA 1404
- 3.8 Replace SCBA air cylinders

**STANDARD 4.0 EXPLAIN FIRE BEHAVIOR**

- 4.1 Describe the fire triangle and fire tetrahedron
- 4.2 Describe transmission of heat
- 4.3 Explain various states of fuel
- 4.4 Describe the classifications of fire (e.g., A, B, C, D and K)
- 4.5 Explain the phases of fire growth

**STANDARD 5.0 EVALUATE BUILDING CONSTRUCTION RELATIVE TO FIRE BEHAVIOR AND STRUCTURAL PERFORMANCE**

- 5.1 Define and use construction terminology
- 5.2 Identify common building materials and construction features such as door size up and locks and locking devices
- 5.3 Describe the principles of building construction and classification of construction methods

- 5.4 Contrast strengths and weaknesses of different types of construction
- 5.5 Identify dangerous building conditions that can lead to firefighter injury and fatality
- 5.6 Research a firefighter fatality (NIOSH) report where building construction was a factor

**STANDARD 6.0 EXAMINE FIRE SERVICE WATER SUPPLY AND DEMONSTRATE FIRE STREAMS**

- 6.1 Describe water supply sources including alternate and rural delivery
- 6.2 Identify types of fire hydrants, markings, locations, use, inspection and maintenance
- 6.3 Identify fire hose sizes, applications, couplings and general care and maintenance
- 6.4 Recognize and demonstrate various hose loads, pre-connect hose lines and hose rolls
- 6.5 Demonstrate the operation of hose lines and associated appliances and hose tools
- 6.6 Explain the principles of fire streams (e.g., types, design, operation and nozzle pressure effects and flow capabilities) and the precautions to be followed when advancing hose lines
- 6.7 Demonstrate fire stream tactics (e.g., extinguishing properties of water, steam conversion and friction loss; opening, closing and adjusting nozzle flow and patterns; and indirect, combination and direct fire attack with fire streams)

**STANDARD 7.0 EXAMINE FIRE GROUND FUNCTIONS**

- 7.1 Describe observational practices en route and on the scene and strategies and tactics to protect and secure the scene
- 7.2 Describe various forcible entry tools, ladders and use and techniques
- 7.3 Describe conventional forcible entry through doors and windows and to breach walls
- 7.4 Describe salvage basics (e.g., covers and equipment, care and maintenance)
- 7.5 Describe overhaul procedures, including locating hidden fires and fire safety procedures
- 7.6 Explain fire ground search safety guidelines including the use of Rapid Intervention Crews (RIC) and the removal of downed firefighters
- 7.7 Explain procedures for conducting a search in a multi-story building and search and rescue marking systems
- 7.8 Demonstrate several methods of victim removal
- 7.9 Describe reasons and considerations for fire ground ventilation
- 7.10 Examine the effects of building systems on fires
- 7.11 Explain vertical, horizontal and forced ventilation

**STANDARD 8.0 EXAMINE INCIDENT COMMAND**

- 8.1 Describe a fire department's risk management practices
- 8.2 Describe tactical priorities
- 8.3 Explain the three fire ground strategies
- 8.4 Discuss fire ground factors
- 8.5 Discuss rescue profiles, IRIC and RIC
- 8.6 Explain resource management and National Incident Management System (NIMS) concepts on the fire scene
- 8.7 Explain alarm room operations
- 8.8 Demonstrate proper radio procedures
- 8.9 Describe documentation and incident reporting for fire and EMS

**STANDARD 9.0 EXAMINE EMS/EXTRICATION MANAGEMENT**

- 9.1 Demonstrate the proper use of infection control precautions (BSI/PPE standards and regulations)
- 9.2 Describe common infectious diseases
- 9.3 Describe the body systems (e.g., muscular, nervous, cardiovascular, respiratory and digestive)
- 9.4 Describe (obtain) a basic CPR certification
- 9.5 Describe (obtain) a basic First Aid certification
- 9.6 Describe emergency power and lighting equipment
- 9.7 Discuss hydraulic, pneumatic and hand extrication tools
- 9.8 Discuss vehicle stabilization techniques
- 9.9 Explain disentanglement and patient management procedures

**STANDARD 10.0 PERFORM SPECIAL OPERATIONS**

- 10.1 Describe (complete) the Hazardous Materials First Responder course meeting requirements of NFPA 472
- 10.2 Describe (complete) the Wildland S130/190 course or equivalent
- 10.3 Describe types of ropes, uses, construction, care and maintenance
- 10.4 Demonstrate tying overhand, bowline, hitches and family of eights knots and hoisting tools and equipment

**STANDARD 11.0 ANALYZE COMMUNITY RISK REDUCTION**

- 11.1 Describe fire protection systems and portable fire extinguishers
- 11.2 Demonstrate proper use of portable fire extinguishers
- 11.3 Describe the various alarm and suppression systems and their applications
- 11.4 Describe suppressing classes B, C and D structure fires
- 11.5 Describe various roles and responsibilities of emergency apparatus types on emergency incidents
- 11.6 Describe career pathways specific to community risk reduction in and outside the fire service (private and public)
- 11.7 Explain steps taken to protect evidence, determine the cause and origin, stop property loss and secure incident scene
- 11.8 Define NFPA 1033 and identify the roles and responsibilities of fire inspectors, education and information specialists and the 5 Es of community risk reduction (e.g., engineering, education, enforcement, economic incentives and emergency response)