

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.

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

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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

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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 eight 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)

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