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| **Logo  Description automatically generated FIRE SERVICE 43.0202.00** **TECHNICAL STANDARDS**An Industry Standards Validation Committee developed and approved these standards on February 23, 2023. 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 July 16, 2023.Note: Arizona’s Professional Skills are taught as an integral part of the Fire Service program. |
| **The Technical Skills Assessment for Fire Service is available SY2023-2024.** |
| **Note: In this document i.e. explains or clarifies the content and e.g. provides examples of the content that must be taught.** |
| STANDARD 1 .0 EXAMINE THE ORGANIZATION AND STRUCTURE OF FIRE SERVICE |
| 1.1 | Explain fire service (e.g., history, mission, culture, and organizational structure) |
| 1.2 | Diagram an organizational chart for a fire department (i.e., chain of command, etc.) |
| 1.3 | Explain the importance of 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 training and education opportunities for firefighters (e.g., fire service resources, fire department or unit demands, State Fire Academy, and Arizona Center for Fire Service Excellence) |
| 1.8 | Describe various roles and responsibilities of emergency apparatus types on emergency incidents |
| STANDARD 2.0 EXAMINE FIREFIGHTER HEALTH, WELLNESS, AND SAFETY |
| 2.1 | Research common firefighter injuries and fatalities |
| 2.2 | Describe safety standards related to fire service [e.g., NFPA (National Fire Protection Association) 1500 and OSHA] |
| 2.3 | Analyze sources of personal stress and fire service related crises (i.e., sleep deprivation, cancer awareness, etc.), and identify management strategies |
| 2.4 | Practice personal safety in learning and training |
| 2.5 | Evaluate health‐compromising risk behaviors on the job and in personal life, and identify successful prevention and intervention techniques |
| 2.6 | Describe various fire service health and wellness programs and EAPs (Employee Assistance Programs) available to firefighters |
| 2.7 | Identify functional exercises specific for firefighters (e.g., warm‐up, flexibility, and core strength exercises; cardiovascular exercises; and functional training exercises) |
| 2.8 | Exhibit physical well‐being through good nutrition and a personal fitness plan including exercises appropriate to firefighters |
| 2.9 | Identify components of a common physical fitness program (e.g., muscular strength, muscular endurance, cardiovascular endurance, flexibility, and body fat composition) |
| 2.10 | Complete a physical ability assessment (i.e., CPAT, etc.) |
| 2.11 | Practice appropriate safety precautions in fire stations and facilities |
| STANDARD 3.0 DEMONSTRATE THE PROPER USE AND MAINTENANCE OF FIREFIGHTING PERSONAL PROTECTIVE EQUIPMENT (PPE) |
| 3.1 | Identify protective equipment that comprises the firefighter's ensemble |
| 3.2 | Demonstrate the inspection and maintenance of personal protective equipment |
| 3.3 | Demonstrate donning and doffing of PPE within 1 minute |
| 3.4 | Identify the components of a SCBA (Self‐Contained Breathing Apparatus) |
| 3.5 | Describe respiratory hazards and when SCBA “shall be used" (i.e., carcinogens, cyanide, etc.) |
| 3.6 | Demonstrate donning and doffing SCBA |
| 3.7 | Explain the principles of air management consistent with NFPA 1404 |
| 3.8 | Demonstrate replacing SCBA air cylinders |
| STANDARD 4.0 EXPLAIN FIRE BEHAVIOR |
| 4.1 | Describe the interaction of the fire triangle and fire tetrahedron (e.g., chemistry of fire) |
| 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 stages of fire growth (e.g., incipient, growth, fully developed, and decay) |
| 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 |
| 5.3 | Identify the types of building construction (e.g., I, II, III, IV, and V) |
| 5.4 | Contrast strengths and weaknesses of different types of construction |
| 5.5 | Identify fire conditions within building constructions that contribute to firefighter injuries/fatalities (i.e., wood vs. steel, lightweight construction, traditional onsite framing, etc.) |
| 5.6 | Research a firefighter fatality NIOSH (National Institute for Occupational Safety and Health) 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 precautions 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, strategies, and tactics, enroute and at the scene [i.e., SDM (Strategic Decision Making Model), fire ground safety, etc.] |
| 7.2 | Describe various firefighter tools and equipment and their uses |
| 7.3 | Identify types of ladders and their uses and safe practices on the fire ground |
| 7.4 | Describe conventional forcible entry |
| 7.5 | Describe salvage basics (e.g., covers and equipment, care, and maintenance) |
| 7.6 | Describe the purpose and techniques of overhaul |
| 7.7 | Explain fire ground search and rescue techniques and safety considerations |
| 7.8 | Explain the purpose and functions of a RIC (Rapid Intervention Crew/Companies) |
| 7.9 | Describe reasons and considerations for fire ground ventilation |
| 7.10 | Demonstrate vertical, horizontal, and forced ventilation |
| STANDARD 8.0 EXAMINE INCIDENT COMMAND |
| 8.1 | Describe the NIMS (National Incident Management System) (i.e., ICS 100, etc.) |
| 8.2 | Describe a fire department’s risk management profile |
| 8.3 | Explain the three fire ground strategies |
| 8.4 | Describe tactical priorities |
| 8.5 | Discuss critical fire ground factors (i.e., rescue profiles, etc.) |
| 8.6 | Demonstrate proper radio procedures |
| 8.7 | Describe the importance of documentation and incident reporting |
| STANDARD 9.0 EXAMINE VEHICLE EXTRICATION |
| 9.1 | Explain and demonstrate the operation of hydraulic, pneumatic, battery-powered, and hand extrication tools and techniques |
| 9.2 | Demonstrate vehicle stabilization techniques (e.g., stabilizing the scene, stabilizing the vehicle, and stabilizing the patient) |
| 9.3 | Explain and demonstrate disentanglement and patient management procedures |
| STANDARD 10.0 EXAMINE SPECIAL OPERATIONS |
| 10.1 | Complete IS-5.A: An Introduction to Hazardous Materials - FEMA Training |
| 10.2 | Complete the Introduction to Wildland and Ground Cover Fire |
| 10.3 | Describe types of ropes and knots (i.e., figure 8, bowline, etc.), their uses, construction, care, and maintenance |
| 10.4 | Define types of special rescues encountered by firefighters (i.e., water, trench, mountain, confined space, rope, use of drones, etc.) |
| STANDARD 11.0 EXAMINE EMS MANAGEMENT |
| 11.1 | Demonstrate the proper use of infection control precautions (e.g., BSI/PPE standards and regulations) |
| 11.2 | Describe common infectious diseases |
| 11.3 | Describe the body systems (e.g., muscular, nervous, cardiovascular, respiratory, and digestive) |
| 11.4 | Complete (obtain) a basic CPR certification |
| 11.5 | Complete (obtain) a basic First Aid certification |
| 11.6 | Complete (obtain) Stop the Bleed certification |
| STANDARD 12.0 ANALYZE COMMUNITY RISK REDUCTION |
| 12.1 | Identify the roles and responsibilities of fire inspectors, fire investigators, public fire educators, and community education specialists [e.g., NFPA 1033 and 5 Es (Education, Engineering, Enforcement, Economic Incentives, and Emergency Response of CRR (Community Risk Reduction)] |
| 12.2 | Describe fire detection, suppression, and smoke control systems |
| 12.3 | Demonstrate proper use of portable fire extinguishers |
| 12.4 | Explain steps taken to protect evidence, determine the cause and origin, stop property loss, and secure incident scene |