

# OHIO DEPARTMENT OF PUBLIC SAFETY DIVISION OF EMERGENCY MEDICAL SERVICES

### FIRE SAFETY INSPECTOR COURSE PACKET

Course Admission Requirements, Qualifications for Certification, Course Objectives, and Recommended Hours Guide

## **EFFECTIVE APRIL 1, 2019**

#### **COURSE OVERVIEW**

The Fire Safety Inspector Course is designed to provide firefighters with the knowledge, skills, and abilities necessary to conduct fire and life safety inspections in Ohio. The course contains all course objectives included in the Hazard Recognition Officer course, as well as more advanced training necessary to perform duties required at the Fire Inspector level, including code interpretation, policy implementation, testifying at legal proceedings, applying local fire and life safety codes to complex situations, analyzing and recommending modifications to local codes, reviewing and evaluating fire protection systems, analyzing egress elements of a structure, and evaluating code compliance in the storage, use, and manufacture of flammable and combustible liquids and gases and hazardous materials.

Although the Fire Safety Inspector course contains basic requirements to review plans, the plan review function is technical and requires additional training beyond the scope of the Fire Safety Inspector Course.

The certification is optional and meets the minimum requirements set forth in the nationally recognized standard, NFPA 1031: "Standard for Professional Qualifications for Fire Inspector and Plan Examiner." Successful completion of the course is required to be eligible to sit for the state examination to be certified as an Ohio Fire Safety Inspector.

NOTE: In accordance with <u>section 3737.34</u> of the Ohio Revised Code (R.C.), no person shall serve as a fire safety inspector for any fire agency unless he/she has received a certificate issued under section 4765.55 of the R.C. evidencing satisfactory completion of the Fire Safety Inspector training program.

#### **COURSE OBJECTIVES**

The Fire Safety Inspector Course Objectives are required to meet industry standards for fire safety inspector training as determined by the National Fire Protection Association (NFPA) Standard 1031 (2014 edition) "Standard for Professional Qualifications for Fire Inspector and Plan Examiner." The hours assigned to each course objective are based on Ohio fire service recommendations. Chartered fire training programs may reallocate 20% of the recommended topic hours to meet student needs so long as all course objectives are met.

#### **COURSE REQUIREMENTS**

The Fire Safety Inspector Course, required to obtain a Fire Safety Inspector certificate, shall consist of a minimum of eighty (80) hours and shall meet the following training requirements:

- 1. Shall meet the Fire Safety Inspector Course Objectives as set forth by the executive director, with advice and counsel of the committee; and
- 2. Shall meet the performance objectives set forth in "NFPA 1031."
- 3. Shall commence and end within a consecutive twelve-month period.

#### **CONTACT HOURS**

Student contact hours: 50 - 60 minutes = 1 hour; 25 - 30 minutes =  $\frac{1}{2}$  hour; full days (0800 - 1600) = 7 hours (assuming 1 hour for lunch unless otherwise documented). Instructional hours may include topic instruction, material review, and testing for knowledge, e.g., quizzes. Instructional hours shall not include practical skill testing, written testing for certification, or instruction on any topics(s) not listed on this guide.

OHIO FIRE SAFETY INSPECTOR CERTIFICATION REQUIREMENTS					
STANDARD / DIRECTIVE	O.A.C. REFERENCE	FIRE SAFETY INSPECTOR COURSE ADMISSION REQUIREMENTS			
N/A	4765-24-14	A chartered fire training program shall admit only those individuals who meet the following requirements into a fire safety inspector or hazard recognition officer course:  (1) Individuals shall be at least eighteen years of age;  (2) Individuals shall hold a current and valid firefighter certificate;  (3) Individuals shall meet all admission requirements established by the chartered fire training program.			
N/A	4765-24-14	In addition to the requirements for admission as set forth in paragraph (C) of this rule, the chartered fire training program shall require each student to be employed by one of the following in order to be eligible for admission into a fire safety inspector course:  (1) The office of the state fire marshal;  (2) A firefighting agency as defined in division (A)(3) of section 9.60 of the R.C.;  (3) A private fire company as defined in division (A)(5) of section 9.60 of the R.C. that is providing fire protection in accordance with division (B), (C), or (D) of section 9.60 of the R.C.			
STANDARD / DIRECTIVE	O.A.C. REFERENCE	QUALIFICATIONS FOR FIRE SAFETY INSPECTOR CERTIFICATION			
N/A	4765-20-03	An applicant for a fire safety inspector certificate shall satisfy the following requirements:  (1) Shall successfully complete a fire safety inspector training course through a chartered fire training program and receive a certificate of course completion;  (2) Shall pass the knowledge and practical skills examinations;  (3) Shall submit a completed "Firefighter, Fire Safety Inspector, or Hazard Recognition Officer Initial Application."			
N/A	4765-20-03	An applicant for fire safety inspector shall not have been convicted of any of the following:  (1) Any felony;  (2) A misdemeanor committed in the course of practice;  (3) A misdemeanor involving moral turpitude.			
N/A	4765-20-03	An applicant for fire safety inspector shall not have committed fraud, misrepresentation, or material deception in applying for, or obtaining, a certificate issued under section 4765.55 of the R.C. and this chapter.			
NFPA 1031	4765-24-14	Individuals shall meet the performance objectives set forth in "NFPA 1031."			
N/A	4765-20-03	Shall pass the knowledge and practical skills examinations as set forth in rule 4765-20-06 of the Ohio Administrative Code (O.A.C.) within 180 days.			
N/A	4765-20-03	Shall submit a completed application within ninety (90) days of passing the knowledge examination.			

	OHIO FIRE SAFETY INSPECTOR – OBJECTIVES & RECOMMENDED HOURS GUIDE							
NFPA 1031 Standard	IFSTA Chapter Title and Page Numbers	JOB PERFORMANCE REQUIREMENTS - OBJECTIVES	Cognitive Hours	Practical Hours	Total Hours			
N/A	N/A	Review of the Ohio Revised Code and Ohio Administrative Code	3	0	3			
N/A	N/A	Ohio Duties and Authority	1.5	0	1.5			
N/A	N/A	Schools - Lockdown, Evacuation, and Planning	1.5	0	1.5			
4.2.6 5.2.4, 5.2.5	Chapter 1 Duties, Legal Guidelines, and Authority Pages 14-37	Cognitive:  1. Describe the duties of an inspector. 2. Describe the legal guidelines for inspections. 3. Explain the types of laws, legal status, and liabilities that impact inspections. 4. Recognize an inspector's role in developing, maintaining, and revising policies or procedures and forms.	1	0	1			
4.2.2, 4.2.4, 4.2.5 5.2.1, 5.2.4	Chapter 2 Codes, Standards, Complaint Procedures, and Permits Pages 41-68	Cognitive:  1. Identify appropriate resources for finding current and applicable codes and standards.  2. Explain complaint procedures.  3. Describe the role of an Inspector in the permitting process.  4. Explain the role of an Inspector in the local code development process.  5. Explain the ways an Inspector will participate in code modification and appeals procedures.  6. Describe the role of the Inspector in the permitting process.  Practical:  1. Draft a letter identifying the need for a permit, citing applicable code references.	2	.5	2.5			
4.3.8, 4.3.14 5.3.6, 5.3.8, 5.3.9, 5.3.10	Chapter 3 Fire Behavior Pages 73-111	Describe the various components of fire behavior.     Describe fire development.     Describe how the fire tetrahedron model can be used to control or extinguish a fire.	3	0	3			

OHIO FIRE SAFETY INSPECTOR – OBJECTIVES & RECOMMENDED HOURS GUIDE							
NFPA 1031 Standard	IFSTA Chapter Title and Page Numbers	JOB PERFORMANCE REQUIREMENTS - OBJECTIVES	Cognitive Hours	Practical Hours	Total Hours		
4.3.1, 4.3.4 5.3.2	Chapter 4 Construction Types and Occupancy Classifications Pages 115-149	Cognitive:  1. Identify construction types. 2. Identify single-use occupancy classifications. 3. Identify multiple-use occupancies.  Practical:  1. Given an observation from a field inspection or using a pre-defined facility (single-use occupancy), determine the occupancy classification and construction type.  2. Given an observation from a field inspection or using a pre-defined facility (multi-use occupancy), determine the occupancy classifications and construction type.	3	1	4		
4.3.4 5.3.3, 5.3.10, 5.4.6	Chapter 5 Building Construction Pages 153-189	Identify accepted types of construction building materials and the fire risks associated with them.      Identify the different types of structural systems used in building construction and the fire risks associated with each.	4	0	4		
4.3.1, 4.3.4 5.3.12, 5.4.6	Chapter 6 Building Components Pages 193-237	Cognitive:  1. Describe different types of walls found in structures and the fire hazards they present.  2. Identify roof types and coverings and the fire hazards they present.  3. Identify floor and ceiling characteristics.  4. Describe stair characteristics important to inspectors.  5. Describe the fire risks posed by how doors operate.  6. Differentiate among fire doors based on construction and operation.  7. Describe different types of windows and how they operate.  8. Describe how interior finishes can contribute to fire spread.  9. Explain the fire and life safety aspects of building services.  10. Describe the characteristics of fire walls.  11. Describe the hazards solar panels pose for firefighters.  12. Identify the standardized testing method currently accepted by building codes.  13. Describe the characteristics of interior components to be evaluated during fire inspections.  14. Explain the inconsistencies in fire door classifications.  15. Identify the testing methods used to evaluate interior finishes.  16. Describe building service characteristics that require inspector evaluations.	4	0	4		

OHIO FIRE SAFETY INSPECTOR – OBJECTIVES & RECOMMENDED HOURS GUIDE						
NFPA 1031 Standard	IFSTA Chapter Title and Page Numbers	JOB PERFORMANCE REQUIREMENTS - OBJECTIVES	Cognitive Hours	Practical Hours	Total Hours	
4.3.2, 4.3.3 5.3.1, 5.3.2, 5.3.3, 5.3.5, 5.3.11, 5.4.1, 5.4.2, 5.4.5	Chapter 7 Means of Egress Pages 241-280	Cognitive:  1. Describe means of egress systems. 2. Explain the way to calculate occupant load for single-use occupancies. 3. Explain the way to calculate occupant loads for multiuse occupancy. 4. Explain the steps in determining means of egress.  Practical: 1. Calculate occupant load for a multi-use/mixed-use building. 2. Calculate allowable exit discharge capacity for an occupancy. 3. Calculate occupant load for a single-use occupancy	3.5	3	6.5	
4.3.11	Chapter 8 Site Access Pages 285-302	Cognitive:  1. Describe types of fire lanes and fire apparatus access roads. 2. Explain site access considerations for construction and demolition sites. 3. Identify structure access barriers.  Practical: 1. Evaluate emergency access requirements for a building; identify deficiencies.	1	1	2	
4.3.8, 4.3.12, 4.3.13, 4.3.14, 4.3.15 5.3.6, 5.3.8, 5.3.9, 5.3.11, 5.3.12	Chapter 9 Fire Hazard Recognition Pages 307-375	Cognitive:  1. Identify unsafe behaviors that may require code enforcement. 2. Identify improper use or storage of flammable and combustible liquids. 3. Recognize unsafe conditions that have hazardous fire growth potential and may require code enforcement. 4. Evaluate hazardous conditions involving building systems. 5. Distinguish among hazardous processes that contribute to increased fire risk Practical: 1. Conduct a fire & life safety inspection (Use Group A, B, or M); identify code violations; complete an inspection report. 2. Conduct a fire & life safety inspection (Use Group E, F, H, or I); identify code violations; complete an inspection report.	3	5	8	

OHIO FIRE SAFETY INSPECTOR – OBJECTIVES & RECOMMENDED HOURS GUIDE						
NFPA 1031 Standard	IFSTA Chapter Title and Page Numbers	JOB PERFORMANCE REQUIREMENTS - OBJECTIVES	Cognitive Hours	Practical Hours	Total Hours	
4.3.8, 4.3.13 5.3.6	Chapter 10 Hazardous Materials Pages 379-461	<ol> <li>Cognitive:         <ol> <li>Explain the application of hazardous materials regulations.</li> <li>Identify some of the applicable codes and standards that apply to hazardous materials.</li> <li>Explain the classification system used for hazardous materials.</li> <li>Describe the classification and properties of physical hazardous materials.</li> <li>Explain the classification of health hazardous materials.</li> <li>Describe the code requirements for the marking of hazardous materials for identification by emergency responders.</li> <li>Describe code considerations for determining the permissible amount of hazardous material within a building.</li> <li>Explain the requirements for storage and use of non-bulk and bulk packaging.</li> <li>Describe the code requirements for testing, maintenance and operation of equipment, containers and tanks.</li> </ol> </li> <li>Describe an inspector's role in process controls.</li> <li>Identify an inspector's responsibility after an unauthorized discharge.</li> <li>Describe requirements for piping, valves, and fittings that convey hazardous materials.</li> <li>Recognize the classification system and requirements for hazardous and high-hazard occupancies.</li> </ol> <li>Describe engineering controls required for hazardous materials.</li>	4	0	4	
4.3.16	Chapter 11 Water Supply Distribution Systems Pages 465-497	Cognitive:  1. Identify components of public water systems. 2. Identify characteristics of private water supply systems. 3. Explain water supply testing. 4. Explain fire hydrant inspections. 5. Explain how to use flow test computations.  Practical:  1. Demonstrate how to use a Pitot tube and gauge to take flow readings. 2. Conduct a flow test calculation.	1.5	2	3.5	

OHIO FIRE SAFETY INSPECTOR – OBJECTIVES & RECOMMENDED HOURS GUIDE							
NFPA 1031 Standard	IFSTA Chapter Title and Page Numbers	JOB PERFORMANCE REQUIREMENTS - OBJECTIVES	Cognitive Hours	Practical Hours	Total Hours		
4.3.5 5.3.8, 5.3.9, 5.3.11, 5.4.3, 5.4.4	Chapter 12 Water-Based Fire Suppression Systems Pages 503-558	Cognitive:  1. Describe the components and basic operation of automatic sprinkler systems. 2. Explain the operation of fixed fire suppression systems. 3. Recognize types of standpipe and hose systems. 4. Explain the components and operation of stationary fire pumps. 5. Explain how to evaluate fire protection systems and equipment. 6. Explain inspection and testing of fire suppression systems and components.  Practical:  1. Complete a field inspection of a fixed fire suppression system; document operational readiness.	2.5	2.5	5		
4.3.5, 4.3.7 5.4.3, 5.4.4	Chapter 13 Special-Agent Fire Extinguishing Systems and Portable Extinguishers Pages 563-603	Cognitive:  1. Describe the components and operation of fixed fire suppression systems. 2. Explain how to determine the operational readiness of portable fire extinguishers 3. Identify the appropriate evaluation and testing methods for special-agent fire extinguishing systems. 4. Describe proper selection, distribution, inspection, and maintenance of portable fire extinguishers.  Practical:  1. Complete a field inspection of a facility equipped with fire extinguishers; document operational readiness. 2. Complete a field inspection of a special-agent fire extinguishing system; document operational readiness.	2.5	4	6.5		

OHIO FIRE SAFETY INSPECTOR – OBJECTIVES & RECOMMENDED HOURS GUIDE							
NFPA 1031 Standard	IFSTA Chapter Title and Page Numbers	JOB PERFORMANCE REQUIREMENTS - OBJECTIVES	Cognitive Hours	Practical Hours	Total Hours		
4.3.6 5.3.4, 5.4.3, 5.4.4	Chapter 14 Fire Detection and Alarm Systems Pages 607-647	Cognitive:  1. Identify fire alarm system components. 2. Explain types of alarm-signaling systems. 3. Explain types of automatic alarm-initiating devices. 4. Describe manual alarm-initiating devices. 5. Describe service testing and inspection methods for fire detection and alarm systems. 6. Explain methods to evaluate fire detection and suppression system equipment for life safety, property conservation, and hazards  Practical:  1. Complete a field inspection of a fixed fire detection and alarm system; document operational readiness.	2.5	3	5.5		
4.2.3, 4.3.9 5.2.2, 5.4.1, 5.4.2, 5.4.3, 5.4.5	Chapter 15 Plans Review and Field Verification Pages 651-685	Cognitive:  1. Recognize the need for a plans review. 2. Identify actions an inspector should take during a plans review. 3. Explain the impact of local codes and ordinances on plans review process. 4. Describe the different views for building construction plans. 5. Describe building system plans. 6. Explain the process of systematic plans review.  Practical: 1. Draft a letter advising a business owner of the need for plans submission and review. 2. Recommend modifications to adopted codes, policies, and procedures.	2	1	3		

OHIO FIRE SAFETY INSPECTOR – OBJECTIVES & RECOMMENDED HOURS GUIDE							
NFPA 1031 Standard	IFSTA Chapter Title and Page Numbers	JOB PERFORMANCE REQUIREMENTS - OBJECTIVES	Cognitive Hours	Practical Hours	Total Hours		
4.2.1, 4.2.4, 4.3.10 5.2.3, 5.3.7	Chapter 16 Inspection Procedures, Complex Complaint Management, and Emergency Planning and Preparedness Pages 689-728	Cognitive:  1. Explain the duties of an Inspector 2. Describe components of interpersonal communications. 3. Describe the basic administrative duties of an Inspector 4. Describe the preparation required before an inspection. 5. Explain basic inspection procedures. 6. Explain the role of an Inspector n follow-up inspection. 7. Identify ways an Inspector I will participate in emergency planning. 8. Describe the complaint management process. 9. Describe what makes a complaint complex. 10. Describe how to evaluate emergency preparedness plans.  Practical: 1. Evaluate an emergency plan, approve or reject the plan citing codes. 2. Complete a complaint investigation form.	2	1.5	3.5		
N/A	Ohio Fire Code NFPA fire codes Ohio Building Code	Cognitive:  1. Define the scope and administration of the Ohio Fire Code. 2. Define the scope and administration of NFPA fire codes. 3. Define the scope and administration of Ohio Building Code.  Practical: 1. Locate and cite Ohio Fire Code, NFPA fire codes, and Ohio Building Code. 2. Demonstrate ability to document code compliance and violations. 3. Demonstrate ability to complete inspection forms. 4. Ability to complete all inspection related calculations.	5	3	8		
		TOTAL FIRE SAFETY INSPECTOR HOURS	52.5	27.5	80.0		

Chapters and page numbers referenced in this document are from Fire Inspection and Code Enforcement (8th edition) published by the International Fire Service Training Association (IFSTA).