

Standardized Curriculum Form Ontario, Canada

Office of the Fire Marshal and Emergency Management Curriculum based on NFPA 1031, Chapter 5, 2014 Edition

FIRE INSPECTOR II

National Fire Protection Association Standard for Fire Inspector and Plan Examiner Professional Qualifications

Notice

NFPA-referenced material set within this document is reproduced with permission from NFPA 1031-2014, Standard for Professional Qualifications for Fire Inspector and Plan Examiner, copyright ©, National Fire Protection Association Quincy, MA 02169. This reprinted material is not the complete and official position of the NFPA on the referenced subject, which is represented only by the standard in its entirety.

Enquiries regarding testing and certification should be directed to:

Manager Academic Standards and Evaluation Unit Ministry of Community Safety and Correctional Services Office of the Fire Marshal and Emergency Management 25 Morton Shulman Avenue, 5th Floor Toronto, Ontario M3M 0B1 <u>OFMTestingandCertification@ontario.ca</u>

June 2017

Components of the OFMEM Academic Standards and Evaluation Unit Standardized Curriculum Form

The OFMEM Academic Standards and Evaluation Unit Standardized Curriculum Forms in Ontario, Canada, are based on internationally-recognized, competency-based, professional qualification standards through the National Fire Protection Association (NFPA). Columns within this form from pages 4 and onward are composed of:

NFPA Objective

National Fire Protection Association Objectives are major competencies and Job Performance Requirements (JPR) within a professional qualifications standard that learners must acquire before successful completion of voluntary testing and certification. To attain these competencies, the OFMEM is offering flexible training delivery models centered on being accessible, attainable, and affordable.

Requisite Knowledge

As defined in published NFPA Professional Qualifications Standards, Requisite Knowledge is "Fundamental knowledge one must have in order to perform a specific task". This can be acquired by referring to the various suggested readings described below. Information used to construct multiple choice test questions in the Provincial Certification Exam for FIRE INSPECTOR II is derived from these materials.

Requisite Skills

As defined in published NFPA Professional Qualifications Standards, Requisite Skills are "The essential skills one must have in order to perform a specific task". This can be acquired by referring to the various suggested readings described below along with the latest version of the Office of the Fire Marshal and Emergency Management's Skills Sheets Booklet for FIRE INSPECTOR II. This booklet is used by Provincial Examiners to evaluate Requisite Skill requirements for those voluntarily seeking certification to NFPA 1031, Chapter 5, 2014 Edition.

Suggested Readings

A total of 50 multiple choice questions in the Provincial Certification Exam for FIRE INSPECTOR II (NFPA 1031-2014) will appear on the test, and are derived from the following suggested readings:

Publisher/Title/Edition	Key Word Reference
 NFPA 1031, Standard for Professional Qualifications for Fire Inspector and Plan Examiner, 2014 Edition Refer to Chapter 5 regarding Fire Inspector II (pgs. 10 - 13) 	NFPA 1031, 2014 Ed.
 2. IFSTA, <i>Fire Inspection and Code Enforcement</i>, 8th Edition Refer to sections within chapters covering Fire Inspector II material 	IFSTA FICE, 8 th Ed.
OR	
 Jones and Bartlett, <i>Fire Inspector, Principles and Practice</i>, 1st Edition Refer to sections within chapters covering Fire Inspector II material 	J&B FIPP, 1 st Ed.
AND	
 4. <i>Fire Protection and Prevention Act, 1997</i> (within 2015 Ontario Fire Code Compendium) • Refer to Part II - Responsibility for Fire Protection Services (pgs. 8 - 12), Part VI - Inspections (pgs. 19 - 25), and Part XII - Miscellaneous (pgs. 56 - 58) 	FPPA, 1997
 5. 2015 Ontario Fire Code Compendium Refer to Division A - Part 1 (pgs. 79 - 89); Division B - Part 1 (pgs. 101 - 111), Part 2 (pgs. 113 - 134), Part 3 (pgs. 135 - 150), Part 4 (pgs. 151 - 211), Part 5 (pgs. 213 - 245), and Part 6 (pgs. 247 - 269) 	Fire Code, 2015
 6. 2012 Ontario Building Code Compendium Refer to Division B - Part 3, Sections 3.1 to 3.2 (pgs. 3 - 111) 	Building Code, 2012
Knowledge Test Weighting (Out of 100%)	

Knowledge Test Weighting (Out of 100%)

This column references percentage of multiple choice questions that will appear on the Provincial Certification Exam for knowledge-based testing for FIRE INSPECTOR II.

Questions are validated by a Provincial Advisory Committee (PAC), and used for voluntary, knowledge-based testing of those seeking certification to NFPA 1031, Chapter 5, 2014 Edition through the Academic Standards and Evaluation Unit of the Office of the Fire Marshal and Emergency Management. A mark of 70% or better is required to receive a "Pass" on the knowledge test.

Skill Sheet

This column references skill objectives that will be evaluated by the Office of the Fire Marshal and Emergency Management, to test Requisite Skill requirements of FIRE INSPECTOR II for those voluntarily seeking certification to NFPA 1031, Chapter 5, 2014 Edition.

Office of the Fire Marshal and Emergency Management Provincial Advisory Committee for FIRE INSPECTOR II

NFPA 1031, Chapter 5, 2014 Edition

Jason VanSlack, H.B.E.S., B.Ed., M.Ed. Educational Consultant OFMEM, Academic Standards and Evaluation Unit, ON (Canada)

Jeff Attwell Acting Academic Manager Ontario Fire College, ON (Canada)

Brian Black Assistant Division Chief Ottawa Fire Services, ON (Canada)

Jack Burt, CFEI Fire Inspector / Fire Investigator London Fire Department, ON (Canada)

Andre Clafton Captain Vaughan Fire and Rescue Service, ON (Canada)

Jana Gillis Chief Fire Prevention Officer Grimsby Fire Department, ON (Canada)

Jennifer Grigg OFC Instructor Ontario Fire College, ON (Canada) **Lindsay Matthews** Fire Prevention Officer Georgian Bay Township Fire Department, ON (Canada)

Michael Peake Fire Prevention Officer Bracebridge Fire Department, ON (Canada)

Karin Roskam Training Officer Mississauga Fire and Emergency Services, ON (Canada)

John L. Sefton Fire Prevention Officer Brampton Fire and Emergency Services, ON (Canada)

David Tiller OFC Instructor Ontario Fire College, ON (Canada)

This document has been reviewed and approved by the Manager of the Academic Standards and Evaluation Unit of the Office of the Fire Marshal and Emergency Management (OFMEM) in Ontario, Canada:

Name: Kalpana Rajgopalan

Date: Apríl 28, 2017

© Queen's Printer for Ontario, 2017.

The "OFMEM Standardized Curriculum Form (SCF)" for NFPA 1031, 2014 Edition - Fire Inspector II is protected by Crown copyright, which is held by the Queen's Printer for Ontario. If credit is given and Crown copyright is acknowledged, the OFMEM Standardized Curriculum Form may be reproduced for non-commercial purposes.

The OFMEM SCF may only be reproduced for commercial purposes under a licence from the Queen's Printer.

To request a licence to reproduce the OFMEM Standardized Curriculum Form for commercial purposes, or for information on Crown copyright generally, please contact:

Senior Copyright Analyst Publications Ontario (416) 326-5153

Copyright@ontario.ca





Course: FIRE INSPECTOR II

Standard: NFPA 1031, Chapter 5, 2014 Edition

NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Sheet #
5.1* General					
The Fire Inspector II shall meet the job performance requirements defined in Chapter 4 and Sections 5.2 through 5.4.					
5.2* Administration					
This duty involves conducting research, interpreting codes, implementing policy, testifying at legal proceedings, and creating forms and job aids, according to the following job performance requirements.					
5.2.1			4		
Process a permit application, given a specific request.	Permit application process	The application of the requisite knowledge	IFSTA FICE, 8 th Ed. Chapter 2	2% of questions	Skill Sheet #1
	Applicable codes Applicable standards Applicable policies and procedures of the jurisdiction		J&B FIPP, 1 st Ed. Chapter 1 FPPA, 1997 Part II		
5.2.2					
Process a plan review application, given a specific request.	Plan review application process	The ability to communicate orally and in writing on matters related to code requirements	IFSTA FICE, 8 th Ed. Chapter 15	4% of questions	Skill Sheet #2
	Code requirements of the jurisdiction Policies and procedures of the jurisdiction	Policies and procedures of the jurisdiction	J&B FIPP, 1 st Ed. Chapter 6		
			Building Code, 2012 Division B - Part 3		





NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Sheet #
5.2.3*					
Investigate complex complaints, given a reported situation or condition.	Applicable codes and standards adopted by the jurisdiction	The ability to interpret codes and standards	IFSTA FICE, 8 th Ed. Chapter 16	2% of questions	Skill Sheet #3
	Policies of the jurisdiction	The ability to recognize problems		-	
		The ability to refer complaints to other agencies when required	J&B FIPP, 1 st Ed. Chapter 5		
5.2.4*					
Recommend modifications to the adopted codes and standards of the jurisdiction, given a fire safety issue.	State statutes or local ordinances establishing or empowering the agency to adopt, enforce, and revise codes and standards	The ability to recognize problems	IFSTA FICE, 8 th Ed. Chapters 1, 2	2% of questions	Skill Sheet #4
	The legal instruments establishing or adopting codes and standards	Collect and develop potential solutions	J&B FIPP, 1 st Ed. Appendix A		
	The development and adoption process for fire and life safety legislation or regulations	Identify cost/risk benefits			
5.2.5*					
Recommend policies and procedures for the delivery of inspection services, given management objectives.	Policies and procedures of the jurisdiction related to code enforcement	The ability to identify approved construction methods and materials related to fire safety	IFSTA FICE, 8 th Ed. Chapter 1	4% of questions	Skill Sheet #5
	Sources of detailed and technical information relating to fire protection and life safety	Read and interpret construction plans and specifications	J&B FIPP, 1 st Ed. Chapter 5		
		Educate			
		Conduct research	FPPA, 1997 Part VI		
		Make decisions	- Part XII		
		Recognize problems Resolve conflicts	-		
5.3 Field Inspection					
This duty involves code enforcement inspections					
and analyses of new and existing structures and					
properties for construction, occupancy, fire					
protection, and exposures, according to the					
following job performance requirements. 5.3.1					
Compute the maximum allowable occupant load of a multi-use building, given field observations	How to calculate occupant loads for an occupancy and for building use	The ability to calculate occupant loads	IFSTA FICE, 8 th Ed. Chapter 7	6% of questions	Skill Sheet #6





NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Sheet #
or a description of its uses.	Code requirements, regulations, operational features presented by various occupancies Fire hazards presented by various occupancies	Identify occupancy factors related to various occupancy classifications Use measuring tools Read plans Use a calculator	J&B FIPP, 1 st Ed. Chapters 3, 7 Fire Code, 2015 Division A - Part 1 Division B - Part 2		
5.3.2*					
Identify the occupancy classifications of a mixed- use building, given a description of the uses.	Occupancy classification Applicable codes and standards Operational features	The ability to interpret code requirements and recognize building uses that fall into each classification of occupancy types	IFSTA FICE, 8 th Ed. Chapters 4, 7 J&B FIPP, 1 st Ed. Chapters 3, 5	6% of questions	Skill Sheet #7
	Fire hazards presented by various occupancies		Fire Code, 2015 Division A - Part 1 Division B - Part 2		
5.3.3*					
Evaluate a building's area, height, occupancy classification, and construction type, given an approved set of plans and construction features.	Building construction with emphasis on fire-rated construction	The ability to identify characteristics of each type of building construction and occupancy classification	IFSTA FICE, 8 th Ed. Chapters 5, 7	6% of questions	Skill Sheet #2
	Evaluation of methods of construction and assemblies for fire rating Analysis of test results		J&B FIPP, 1 st Ed. Chapter 6		
	Manufacturer's specifications		Building Code, 2012 Division B - Part 3		
5.3.4*			the second se		
Evaluate fire protection systems and equipment provided for life safety and property protection, given field observations of the facility and	Applicable codes and standards for fire protection systems	The ability to recognize problems	IFSTA FICE, 8 th Ed. Chapters 12, 14	6% of questions	Skill Sheet #8
documentation, the hazards protected, and the system specifications.			J&B FIPP, 1 st Ed. Chapter 9		
	Basic physical science as it relates to fire behavior and fire suppression	Use codes and standards	Fire Code, 2015		
	Implications and hazards associated with system operation	Read reports	Division B - Part 6		





NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Sheet #
	Installation techniques and acceptance inspection	Read plans			
	Testing and reports of maintenance of completed installations	Read specifications			
	Use and function of various systems				
5.3.5 Analyze the egress elements of a building or portion of a building, given observations made during a field inspection.	Acceptable means of egress devices	The ability to calculate egress requirements	IFSTA FICE, 8 th Ed. Chapter 7	2% of questions	Skill Sheet #9
		Read plans Make decisions related to the adequacy of egress	J&B FIPP, 1 st Ed. Chapter 7		
			Fire Code, 2015 Division B - Part 2		
5.3.6* Evaluate hazardous conditions involving	Applicable codes and standards	The ability to observe	IFSTA FICE, 8 th Ed.	6% of	Skill Sheet #10
equipment, processes, and operations, given field observations and documentation.	Applicable codes and standards	The ability to observe	Chapters 3, 9, 10	questions	Skii Sheet #10
	Accepted fire protection practices	The ability to communicate	J&B FIPP, 1 st Ed.		
	Fire behavior	The ability to interpret codes	Chapters 11, 13		
	Ignition sources	The ability to recognize problems			
	Safe housekeeping practices Additional reference materials related to protection of hazardous processes	The ability to make decisions	Fire Code, 2015 Division B - Part 1 Division B - Part 5		
	Additional reference materials related to code enforcement	-			
5.3.7*	Occupancy requirements for emergency evacuation	The ability to compare submitted plans and	IFSTA FICE, 8 th Ed.	6% of	Skill Sheet #11
Evaluate emergency planning and preparedness procedures, given existing or proposed plans and procedures and applicable codes and standards.	plans	procedures with applicable codes and standards adopted by the jurisdiction	Chapter 16 Gw of questions	Skill Sheet #11	
	Fire safety programs for crowd control Roles of agencies and individuals in implementation		J&B FIPP, 1 st Ed. Chapter 7		
	and development of emergency plans		Fire Code, 2015 Division B - Part 2		





NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Sheet #		
5.3.8							
Verify code compliance for storage, handling, and use of flammable and combustible liquids and gases, given field observations and inspection guidelines from the authority having jurisdiction.	Flammable and combustible liquids properties and hazards	The ability to identify typical fire hazards associated with processes or operations utilizing flammable and combustible liquids	Chapters 3, 9, 12 J&B FIPP, 1 st Ed.	• • •	Chapters 3, 9, 12	6% of Questions	Skill Sheet #12
	Material safety data sheet	Observe	Chapter 12				
	Safe handling practices	Communicate					
	Applicable codes and standards	Interpret codes	Fire Code, 2015				
	Fire protection systems and equipment approved for the material	Recognize problems	 Division B - Part 2 Division B - Part 3 Division B - Part 4 Division B - Part 5 				
	Fire behavior	Make decisions					
	Safety procedures						
	Storage compatibility						
5.3.9							
Evaluate code compliance for the storage, handling, and use of hazardous materials, given field observations.	Hazardous materials properties and hazards	The ability to identify fire hazards associated with processes or operations utilizing hazardous materials	IFSTA FICE, 8th Ed.2% of questionsChapters 3, 9, 12questions		Skill Sheet #13		
	Material safety data sheet	Observe	J&B FIPP, 1 st Ed.				
	Safe handling practices	Communicate	Chapter 12				
	Applicable codes and standards	Interpret codes					
	Fire protection systems and equipment approved for the material	Recognize problems	Fire Code, 2015 Division B - Part 4				
	Fire behavior	Make decisions					
	Safety procedures						
	Chemical reactions						
	Storage compatibility						
5.3.10*							
Determine fire growth potential in a building or space, given field observations or plans.	Basic fire behavior	The ability to observe	IFSTA FICE, 8 th Ed. Chapters 3, 5	4% of questions	Skill Sheet #14		
	Flame spread and smoke development ratings of contents	Communicate	J&B FIPP, 1 st Ed. Chapter 5 Fire Code, 2015				
	Flame spread and smoke development ratings of interior finishes	Interpret codes and standards					
	Flame spread and smoke development ratings of	Recognize hazardous conditions					





NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Sheet #
	building construction elements		Division A - Part 1		
	Flame spread and smoke development ratings of	Make decisions			
	decorations		Building Code, 2012		
	Flame spread and smoke development ratings of decorative materials		Division B - Part 3		
	Flame spread and smoke development ratings of				
	furnishings				
	Safe housekeeping practices				
5.3.11*			41		
Verify compliance with construction documents, given a performance-based design.	Applicable codes and standards for installation and testing of fire protection systems	Ability to witness and document tests of fire protection systems and building services equipment	IFSTA FICE, 8 th Ed. Chapters 7, 9, 12	4% of questions	Skill Sheet #15
	Means of egress		J&B FIPP, 1 st Ed.		
	Building services equipment	1	Chapters 6, 9		
		1	• /		
			Building Code, 2012		
			Division B - Part 3		
5.3.12*					
Verify code compliance of heating, ventilation, air	Types, installation, maintenance, and use of	The ability to observe	IFSTA FICE, 8 th Ed.	6% of	Skill Sheet #15
conditioning, and other building service	building service equipment		Chapters 6, 9	questions	
equipment and operations, given field observations.			J&B FIPP, 1 st Ed.		
			Chapters 5, 11, 12		
	Operation of smoke and heat vents	Recognize problems			
	Installation of kitchen cooking equipment (including hoods and ducts)	Interpret codes and standards	Fire Code, 2015		
	Installation of laundry chutes	Write non onto	Division A - Part 1		
	Installation of elevators	Write reports	Division B - Part 2		
	Installation of escalators	-			
	Applicable codes and standards adopted by the	4			
	jurisdiction				
5.4 Plans Review					
This duty involves field verification of shop					
drawings, plans, and construction documents to					
ensure that they meet the intent of applicable					





NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Sheet #
codes and standards for fire and life safety, according to the following job performance requirements.					
5.4.1*					
Classify the occupancy type, given a set of plans, specifications, and a description of a building.	Occupancy classification	The ability to read plans	IFSTA FICE, 8 th Ed. Chapters 7, 15	4% of questions	Skill Sheet #2
	Applicable codes and standards				
	Regulations		J&B FIPP, 1 st Ed.		
	Operational features		Chapter 6		
	Fire hazards presented by various occupancies		Building Code, 2012 Division B - Part 3		
5.4.2*			Division B - 1 art 5		
Compute the maximum allowable occupant load, given a floor plan of a building or portion of the building.	How to calculate occupant loads for an occupancy and building use	The ability to calculate accurate occupant loads	IFSTA FICE, 8 th Ed. Chapters 7, 15	4% of questions	Skill Sheet #6
	Code requirements	Identify occupancy factors related to various occupancy classifications	J&B FIPP, 1 st Ed. Chapter 7		
	Regulations	Using measuring tools	Eine Code 2015		
	Operational features such as fixed seating	Read plans	Fire Code, 2015 Division B - Part 2		
	Fire hazards presented by various occupancies	Use a calculator	Division B - 1 at t 2		
5.4.3*					
Review the proposed installation of fire protection systems, given shop drawings and system specifications for a process or operation.	Proper selection, distribution, location, and testing of portable fire extinguishers	The ability to read basic floor plans or shop drawings and identify symbols used by the jurisdiction.	IFSTA FICE, 8 th Ed. Chapters 11, 12, 13, 14, 15	8% of questions	Skill Sheet #8
	Methods used to evaluate the operational readiness of water supply systems used for fire protection		J&B FIPP, 1 st Ed. Chapters 6, 9		
	Evaluation and testing of automatic sprinkler systems		Fire Code, 2015		
	Evaluation and testing of water spray systems	1	Division B - Part 2		
	Evaluation and testing of standpipe systems	7	Division B - Part 3		
	Evaluation and testing of fire pumps]	Division B - Part 6		
	Evaluation and testing of fixed fire suppression				
	systems	4			
	Evaluation and testing of automatic fire detection				





NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Sheet #
	and alarm systems and devices				
5.4.4					
Review the installation of fire protection systems, given an installed system, shop drawings, and system specifications for a process or operation.	Proper selection of portable fire extinguishers	The ability to read basic floor plans or shop drawings	IFSTA FICE, 8 th Ed. Chapters 12, 13, 14, 15	4% of Questions	Skill Sheet #8
	Proper distribution of portable fire extinguishers		J&B FIPP, 1 st Ed.		
	Proper location of portable fire extinguishers		Chapters 6, 9		
	Proper testing of portable fire extinguishers				
	Methods used to evaluate the operational readiness of water supply systems used for fire protection		Fire Code, 2015 Division B - Part 5		
	Evaluation and testing of automatic sprinkler		Division B - Part 6		
	systems				
	Evaluation and testing of water spray systems				
	Evaluation and testing of standpipe systems]			
	Evaluation and testing of fire pumps				
	Evaluation and testing of fixed fire suppression systems				
	Evaluation and testing of automatic fire detection and alarm systems and devices				
5.4.5					
Verify that means of egress elements are provided, given a floor plan of a building or	Applicable codes and standards adopted by the jurisdiction	The ability to read plans	IFSTA FICE, 8 th Ed. Chapters 7, 15	2% of questions	Skill Sheet #9
portion of a building.			J&B FIPP, 1 st Ed.		
	The identification of standard symbols used in plans	Research codes and standards	Chapter 7		
	Field verification practices		Chapter 7		
5.4.6*				10/ 0	
Verify the construction type of a building or portion thereof, given a set of approved plans and specifications.	Building construction with emphasis on fire-rated construction	The ability to identify characteristics of each type of building construction	IFSTA FICE, 8 th Ed. Chapters 5, 6	4% of questions	Skill Sheet #16
specifications.	Evaluation of methods of construction and assemblies for fire rating		J&B FIPP, 1 st Ed. Chapter 6		
	Analysis of test results Manufacturer's specifications		Fire Code, 2015 Division A - Part 1		





NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Sheet #
			Building Code, 2012 Division B - Part 3		