

Vocational Training Program

5822

Fire Safety Techniques

Training Sector

7

Buildings
and Public Works

Québec 



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Training Sector

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Buildings
and Public Works

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et formation continue

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Introduction to the Program

In vocational training, a program of study presents the competencies required to practise a given trade or occupation at entry level on the job market. The training provided allows students to acquire a degree of versatility that will be useful in their career and personal development.

A program is a coherent set of competencies to be developed. It outlines the knowledge and broad orientations to be favoured during training. The competencies correspond to the tasks of the trade or occupation or to activities related to work, vocational or personal life, depending on the case. Learning is acquired in a specific achievement context and targets the ability to act, succeed and evolve.

According to the Education Act¹, "every program shall include compulsory objectives and contents and may include optional objectives and contents that shall be enriched or adapted according to the needs of students who receive the services." For behavioural competencies, the compulsory components include the statement of the competency, the elements of the competency, the achievement context and the performance criteria; for situational competencies, they include the corresponding components.

For information purposes, programs also provide a grid of competencies, educational aims, a summary of competency-related knowledge and know-how, and guidelines. They also specify the suggested duration of each competency. All optional components of a program may be enriched or adapted according to the needs of the students, the environment and the workplace.

Program Components

Program Goals

Program goals consist of the expected outcome at the end of training as well as a general description of a given trade or occupation. They also include the four general goals of vocational training.

Educational Aims

Educational aims are broad orientations to be favoured during training in order to help students acquire intellectual or motor skills, work habits or attitudes. Educational aims usually address important aspects of career and personal vocational development that have not been explicitly included in the program goals or competencies. They serve to orient appropriate teaching strategies to contextualize students' learning, in keeping with the dimensions underlying the practice of a trade or occupation. They help guide educational institutions in implementing the program.

Competency

A competency is the ability to act, succeed and evolve in order to adequately perform tasks or activities related to one's working or personal life, based on an organized body of knowledge and skills from a variety of fields, perceptions, attitudes, etc.

A competency in vocational training can be defined in terms of a behaviour or a situation, and includes specific practical guidelines and requirements for learning.

¹ Education Act, R.S.Q., c. I-13.3, ss 461

1. Behavioural Competency

A behavioural competency describes the actions and the results expected of the student. It consists of the following features:

- The *statement of the competency* is the result of the job analysis, the orientations and general goals of vocational training and other determinants.
- The *elements of the competency* correspond to essential details that are necessary in order to understand the competency and are expressed in terms of specific behaviours. They refer to the major steps involved in performing a task or to the main components of the competency.
- The *achievement context* corresponds to the situation in which the competency is exercised at entry-level on the job market. The achievement context attempts to recreate an actual work situation but does not describe a learning or evaluation situation.
- The *performance criteria* define the requirements to be respected. They may refer to elements of the competency or to the competency as a whole. When associated with a specific element, performance criteria are used to judge whether a competency has been acquired. When associated with the competency as a whole, the criteria describe the requirements for performing a task or activity and provide information on the expected level of performance or the overall quality of a product or service.

2. Situational Competency

A situational competency describes the situation in which students are placed to acquire learning, and allows for actions and results to vary from one student to another. It consists of the following features:

- The *statement of the competency* is the result of the job analysis, the orientations and general goals of vocational training and other determinants.
- The *elements of the competency* outline the essential aspects of the competency and ensure a better understanding of the competency with respect to the expected outcome. The elements of the competency are fundamental to the implementation of the learning situation.
- The *learning context* provides a broad outline of the learning situation designed to help the students develop the required competency. It is normally divided into three key phases of learning: information, participation and synthesis.
- The *instructional guidelines* provide reference points and means for teachers to ensure that learning takes place and that the context in which it occurs is always the same. These guidelines may include general principles or specific procedures.
- The *participation criteria* describe requirements that the students must meet when participating in learning activities. They focus on how the students take part in the activities rather than on the results obtained. Participation criteria are normally provided for each phase of the learning situation.

Competency-Related Knowledge and Know-How

Competency-related knowledge and know-how together with related guidelines, are provided for information purposes. Competency-related knowledge and know-how define the essential and meaningful learning that students must acquire in order to apply and continue to develop the competency. They are in keeping with the job market and are accompanied by guidelines that provide information about the field of application, level of complexity and learning content. They generally encompass learning associated with knowledge, skills, strategies, attitudes, perceptions, etc.

Duration

The total duration of the program is compulsory and must be observed. It consists of teaching time, which includes time for the evaluation of learning and for enrichment or remedial activities, depending on the students' needs. The duration indicated for a given competency refers to the amount of time needed to develop the competency.

The amount of teaching time corresponds to the amount of time allotted to training, which is established during program development as the average amount of time needed to acquire a competency and evaluate learning. This duration is helpful in organizing training.

Credit

A credit is a unit used for expressing the quantitative value of each competency. One credit corresponds to 15 hours of training.

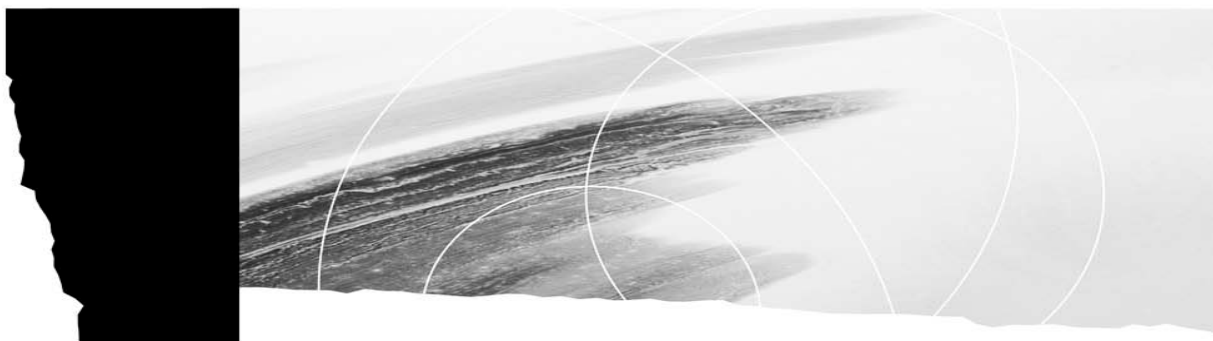
Aspects of Program Implementation

Program-Based Approach

The program-based approach is founded on a comprehensive view of a program of study and its components (e.g. goals, educational aims, competencies). It requires concerted action among all players involved, from the initial stages of program design and development, to program implementation and evaluation. It consists in ensuring that all of the actions and activities proposed are based on the same aims and take into account the same orientations. For students, the program-based approach makes training more meaningful as it presents learning as a coherent whole.

Competency-Based Approach

In vocational training, the competency-based approach is based on a teaching philosophy that is designed to help students mobilize their own individual sets of resources in order to act, succeed and evolve in different contexts, according to established performance levels with all the required knowledge and know-how (e.g. skills, strategies, attitudes, perceptions). The competency-based approach is carried out in situations that are relevant to the students' working life and personal life.



5822

Fire Safety Techniques

Year of approval: 2007

Certification:	Diploma of Vocational Studies
Number of credits:	79 credits
Number of competencies:	25 competencies
Total duration:	1 185 hours

To be eligible for admission to the *Fire Safety Techniques* program, candidates must meet one of the following requirements:

- Persons holding a Secondary School Diploma or its recognized equivalent.
- OR
- Persons who are at least 16 years of age on September 30 of the school year in which their training is to begin and have earned the Secondary IV credits in language of instruction, second language and mathematics in the programs of study established by the Minister, or have been granted recognition of equivalent learning.
- OR
- Persons who are at least 18 years of age upon entry into the program and have the following functional prerequisites: the successful completion of the general development test and the english course ENG-3070-3, and the mathematics course MTH-3016-2, or recognition of equivalent learning.
- OR
- Persons having earned Secondary III credits in language of instruction, second language and mathematics in the programs of study established by the Minister and who will continue their general education courses concurrently with their vocational training in order to obtain the credits they are missing among the following: Secondary IV language of instruction, second language and mathematics in the programs of study established by the Minister.

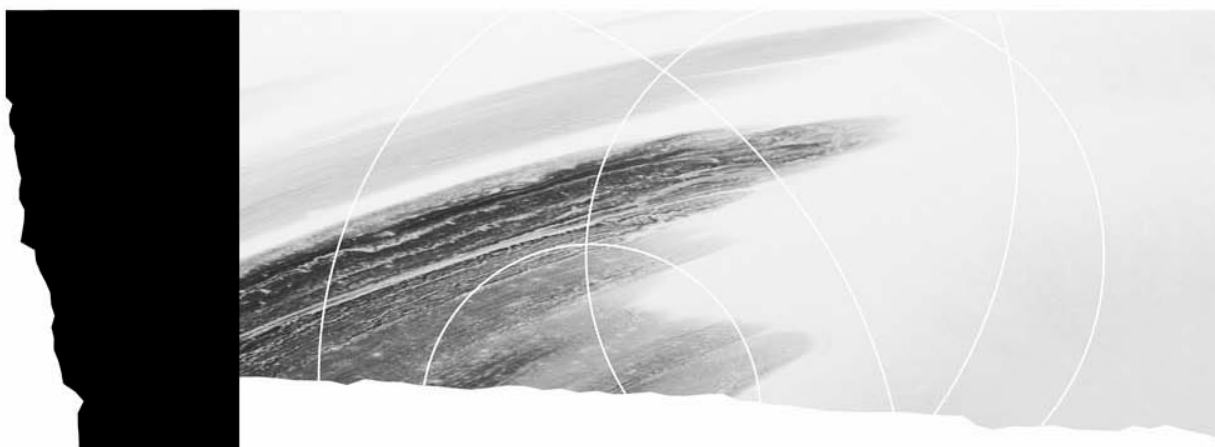
The duration of the program is 1 185 hours, which includes 630 hours spent on the specific competencies required to practise the trade or occupation and 555 hours on general, work-related competencies. The program of study is divided into 25 competencies which vary in length from 30 to 75 hours. The total hours allocated to the program include time devoted to teaching, evaluation of learning and enrichment or remedial activities.

Specifics of the Program

The *Fire Safety Techniques* program (DVS-5822) was developed with a view to providing continuity in training and professional development.

Individuals completing the *Fire Safety Techniques* program (DVS-5822) may therefore continue their training in the *Fire Safety* program (DCS-311.A0) at the college level. Competencies acquired in *Fire Safety Techniques* (DVS-5822) are considered for admission to *Fire Safety* (DCS-311.A0).

Competency	Code	Number	Hours	Credits
The Occupation and the Training Process	937302	1	30	2
Hoses, Nozzles and Appliances	937312	2	30	2
Search for Victims	937322	3	30	2
Building Construction	937333	4	45	3
Building Access	937343	5	45	3
Operating a Fire Vehicle	937933	6	45	3
Pumpers	937363	7	45	3
Low-Risk Buildings and Exterior Fires	937375	8	75	5
Hazardous Materials Operations	937383	9	45	3
Salvage and Overhauling	937392	10	30	2
Acting as a First Responder	937944	11	60	4
High-Flow Equipment	937413	12	45	3
Attached Low-Rise Buildings and Large Buildings	937953	13	45	3
Ladder Trucks	937433	14	30	2
Fire Station Life	937962	15	30	2
Physical Health	937455	16	75	5
Advanced Water Supply Operations	937462	17	30	2
High-Occupancy Buildings	937974	18	60	4
Prevention Activities	937475	19	75	5
Psychological Health	937482	20	30	2
Vertical Rescue	937984	21	60	4
Water Rescue Operations	937993	22	45	3
Vehicle Rescue Operations	938004	23	60	4
Confined-Space Rescue	938013	24	45	3
Entering the Labour Market	937274	25	60	4



Part I

Program Goals

Educational Aims

Statements of the Competencies

Grid of Competencies

Harmonization

Program Goals

The *Fire Safety Techniques* program prepares students to practise the trade or occupation of firefighter.

Firefighters participate as members of a team in protecting persons and property as well as in fighting fires using the standard and specialized materials required. For emergencies other than fires, firefighters assist communities hit by natural or industrial disasters in order to minimize impact on lives, property or the environment. In terms of rescue operations, firefighters participate in search activities, dispense first aid and evacuate victims.

In medical emergencies requiring a quick response to reduce the chance of death, firefighters also act as first responders. As such, they provide a person in need with the necessary medical first aid to stabilize his or her condition.

Firefighters also play a role in prevention, participating in inspecting buildings and other structures, in designing or implementing emergency response plans as well as in determining fire risks. They also collaborate in awareness-raising campaigns with high-risk clientele and in prevention exercises, such as evacuations.

Lastly, firefighters maintain the fire station quarters as well as the vehicles and accessories used for firefighting and various emergency operations.

In accordance with current regulations, program graduates are qualified to work for any municipal fire department in Québec.

The program goals of the *Fire Safety Techniques* program are based on the general goals of vocational training. These goals are as follows:

- To help students develop effectiveness in the practice of a trade or occupation, that is:
 - to teach students to perform roles, functions, tasks and activities associated with the trade or occupation upon entry into the job market
 - to prepare students to progress satisfactorily on the job (which implies having the technical and technological knowledge and skills in such areas as communication, problem solving, decision making, ethics, health and safety)
- To help students integrate into the work force, that is:
 - to familiarize students with the job market in general, and with the specific context of their chosen trade or occupation
 - to familiarize students with their rights and responsibilities as workers
- To foster students' personal development and acquisition of occupational knowledge, skills, perceptions and attitudes, that is:
 - to help students develop their autonomy and ability to learn, and acquire effective work methods
 - to help students understand the principles underlying the techniques and the technology used in the trade or occupation
 - to help students develop self-expression, creativity, initiative and entrepreneurial spirit
 - to help students adopt the attitudes required to successfully practise the trade or occupation, and instill in them a sense of responsibility and a concern for excellence

- To promote job mobility, that is:
 - to help students develop positive attitudes toward change
 - to help students develop the means to manage their careers by familiarizing them with entrepreneurship

Educational Aims

The aim of the *Fire Safety Techniques* program is to help students develop attitudes and behaviours that representatives from education and the field deem essential to the practice of the trade or occupation:

- To develop a sense of professional commitment
- To develop a concern for efficiency
- To develop a concern for excellence
- To increase respect for others
- To broaden respect for the environment

Statements of the Competencies

List of Competencies

- To determine their suitability for the occupation and the training process.
- To handle hoses, nozzles and appliances.
- To conduct searches for victims in conditions involving heat and smoke.
- To establish connections between combustion phenomena and building construction.
- To access a building and its structure.
- To operate a fire vehicle.
- To establish the water supply for fire streams.
- To perform emergency operations involving a fire in a low-risk building and an exterior fire.
- To perform emergency operations involving hazardous materials.
- To perform on-site salvage and overhaul operations.
- To act as a First Responder.
- To establish a water supply and set up high-flow equipment.
- To perform emergency operations involving a fire in an attached low-rise building and a large building.
- To manoeuvre a ladder truck.
- To interact with the members of a fire station.
- To prevent physical health problems.
- To set up and establish the water supply from one fire vehicle to another.
- To perform emergency operations involving a fire in a high-occupancy building.
- To carry out prevention activities.
- To prevent psychological health problems.
- To perform vertical rescue operations.
- To perform water rescue operations.
- To perform rescue operations involving a damaged vehicle.
- To perform rescue operations in a confined space.
- To enter the labour market.

Grid of Competencies

The grid of competencies shows the relationship between general competencies, which correspond to work-related activities, and specific competencies, which are required to practise the particular trade or occupation, as well as the major steps in the work process.

The general competencies appear on the horizontal axis and the specific competencies, on the vertical axis. The symbol (○) indicates a correlation between a general and a specific competency. The symbol (Δ) indicates a correlation between a specific competency and a step in the work process. Shaded symbols indicate that these relationships have been taken into account in the acquisition of specific competencies. The logic used in constructing the grid influences the course sequence. Generally speaking, this sequence follows a logical progression in terms of the complexity of the learning involved and the development of the students' autonomy. The vertical axis presents the specific competencies in the order in which they should be acquired and serves as a point of departure for determining how all of the competencies will be taught.

GRID OF COMPETENCIES																											
GENERAL COMPETENCIES																				WORK PROCESS							
SPECIFIC COMPETENCIES	FIRE SAFETY TECHNIQUES																										
	Competency number	Type of competency	Duration (In hour s)	To determine their suitability for the occupation and the training process	To handle hoses, nozzles and appliances	To conduct searches for victims in conditions involving heat and smoke	To establish connections between combustion phenomena and building construction	To access a building and its structure	To operate a fire vehicle	To establish the water supply for fire streams	To perform on-site salvage and overhaul operations	To establish a water supply and set up high-flow equipment	To manoeuvre a ladder truck	To interact with the members of a fire station	To prevent physical health problems	To set up and establish the water supply from one fire vehicle to another	To prevent psychological health problems	Answer the emergency call	Go to the scene of the emergency	Assess the rescue situation	Plan their work	Perform operations	Prepare the equipment for the next emergency	Conduct a retrospective analysis of the operation			
	Competency number	Type of competency	Duration (in hours)	1	2	3	4	5	6	7	10	12	14	15	16	17	20										
	Type of competency			s	b	b	b	b	b	b	b	b	b	s	s	b	s										
	Duration (in hours)			30	30	30	45	45	45	45	30	45	45	30	75	30	30										
To perform emergency operations involving a fire in a low-risk building and an exterior fire	8	b	75	●	●	●	●	●	●	●	○	○	○	○	○	○	○	▲	▲	▲	▲	▲	▲	▲			
To perform emergency operations involving hazardous materials	9	b	45	●	●	●	●	○	●	●	○	○		○	○	○	○	▲	▲	▲	▲	▲	▲	▲			
To act as a First Responder	11	b	60	●										○	○		○	▲	▲	▲	▲	▲	▲	▲			
To perform emergency operations involving a fire in an attached low-rise building and a large building	13	b	45	●	●	●	●	●	●	●	●	●	○	○	○	○	○	▲	▲	▲	▲	▲	▲	▲			
To perform emergency operations involving a fire in a high-occupancy building	18	b	60	●	●	●	●	●	●	●	●	●	●	○	○	●	○	▲	▲	▲	▲	▲	▲	▲			
To carry out prevention activities	19	b	75	●			●		○					○	○				▲		▲			▲			
To perform vertical rescue operations	21	b	60	●					○					○	○		●		▲	▲	▲	▲	▲	▲			
To perform water rescue operations	22	b	45	●					●					○	○		●	▲	▲	▲	▲	▲	▲	▲			
To perform rescue operations involving a damaged vehicle	23	b	60	●	●	●		●	●	●	○			○	○		●	▲	▲	▲	▲	▲	▲	▲			
To perform rescue operations in a confined space	24	b	45	●		●	●	●	○		○			○	○		●	▲	▲	▲	▲	▲	▲	▲			
To enter the labour market	25	s	60	●	○	○	○	○	○	○	○	○	○	●	●	○	○	▲	▲	▲	▲	▲	▲	▲			

Harmonization

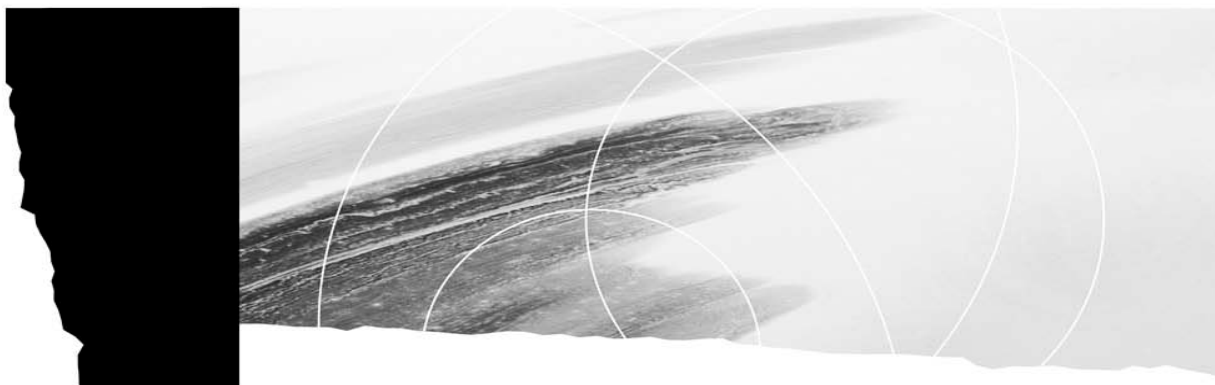
The Ministère de l'Éducation, du Loisir et du Sport harmonizes its vocational and technical programs by establishing similarities and continuity between secondary- and college-level programs within a particular sector or between sectors in order to avoid overlap in program offerings, to recognize prior learning and to optimize the students' progress.

Harmonization establishes consistency between training programs and is especially important in ensuring that the tasks of a trade or occupation are clearly identified and described. Harmonization makes it possible to identify tasks requiring competencies that are common to more than one program. Even if there are no common competencies, training programs are still harmonized.

Harmonization is said to be “inter-level” when it focuses on training programs at different levels, “intra-level” when it focuses on programs within the same educational level, and “inter-sector” when carried out between programs in various sectors.

An important aspect of harmonization is that it allows the common features of competencies to be identified and updated as needed. Common competencies are those that are shared by more than one program; once acquired in one program, they can be recognized as having been acquired in another. Competencies with exactly the same statement and elements are said to be identical. Common competencies that are not identical but have enough similarities to be of equal value are said to be equivalent.

The *Fire Safety Techniques* program does not share any competencies with other programs at this time.



Part II

Program Competencies

Competency 1 Duration 30 hours Credits 2

Situational Objective

Statement of the Competency

To determine their suitability for the occupation and the training process.

Elements of the Competency

- Become familiar with the realities of the occupation.
- Learn about the risks associated with the occupation of firefighter.
- Learn about occupational health and safety rules.
- Understand the training process.
- Confirm their career choice.

Learning Context

Information Phase

- Learning about the job market in fire safety: sector and job prospects, salary, opportunities for advancement, roles and responsibilities of the different parties in the sector.
- Learning about the nature and requirements of the job (occupational and medical requirements, job-related tasks and activities, standards of the National Fire Prevention Association [NFPA], working conditions, evaluation criteria, workers' rights and responsibilities) through field trips, interviews, written material, etc.
- Learning about the risks involved in working as a firefighter.
- Learning about the steps involved in the emergency response process.
- Learning about the training plan: program of study, training process, methods of evaluation, certification of studies.
- Presenting the information gathered during a group discussion and sharing their perceptions of the trade (advantages, disadvantages and requirements), the advantages of prevention and the principal means of applying occupational health and safety rules.

Participation Phase

- Discussing the skills, aptitudes, attitudes and knowledge required to practise the occupation.
- Discussing how the training program prepares them for work as firefighters.
- Discussing the health and safety rules to be applied for each step of the emergency response process and for handling hazardous materials.
- Discussing the characteristics and limitations of the various means of protection available.
- Sharing their views on the occupation and the training process.

Synthesis Phase

- Discussing the corrections to be made to improve the summary presented.
- Assessing their career choice by comparing the different aspects and requirements of the occupation with their own preferences, aptitudes and interests.
- Producing a report in which they evaluate their career choice.

Instructional Guidelines

- Create a climate that fosters the integration of all students.
- Make available to students relevant documentation: information on the occupation, summary of competencies targeted by the program of study, legislation, guides, statistics, etc.
- Organize meetings with various parties in the field: firefighters, occupational health and safety specialists, hazardous materials specialists.
- Organize site visits with the main employers in the field.
- Promote discussion among students and encourage all students to express their opinions.
- Provide students with the means to assess their career choice honestly and objectively.

Participation Criteria

Information Phase

- Carefully examine the documentation.
- Gather information on most of the topics to be covered.
- Express their views on the occupation during a group discussion, relating these views to the information they have gathered.

Participation Phase

- Participate in discussions, showing interest in the topics covered.
- Express their opinions on the measures they intend to take to apply occupational health and safety rules.

Synthesis Phase

- Produce a report in which they:
 - sum up their preferences, aptitudes and interests
 - explain their career choice, making the required connections
 - explain why they choose to continue or withdraw from the training program

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each phase of the learning context, along with their attendant guidelines.

Information Phase

- Be receptive to information on the occupation and the training.

Conditions indicating receptiveness: attention, interest and concentration
 Information on the job market, nature and requirements of the job, roles and responsibilities of unions and employers' associations, laws and regulations governing the industry
 Tasks and activities related to firefighting, prevention, public information and data collection for the purpose of developing emergency response plans
 Importance of the emergency response process
 Training plan

- Be receptive to data related to risks and accidents involving firefighters.
- Determine a method of taking notes and presenting the information they have gathered.

Statistics on the number of accidents, the main causes of accidents and the implications of accidents

Note-taking method, rules of presentation and organization of report

Participation Phase

- Express an interest in sharing their opinions with other students.
- List the skills, aptitudes, attitudes and knowledge required to practise the occupation.

Advantages of communicating their opinions and listening to those of others

Simple definitions:

- skill: possibility of reproducing a behaviour
- aptitude: natural disposition
- attitude: possibility of reacting to situations
- knowledge: idea, concept, comprehension

Physical and psychological health

Importance of developing reflexes in matters of prevention

- Recognize the different steps in the emergency response process.

Steps: Answer the emergency call, go to the scene of the emergency, assess the emergency situation, plan their work, perform the required operations, prepare the equipment for the next emergency, participate in evaluating the emergency operations
Risks involved in each step

- Recognize the different types of emergency operations.

Low-risk buildings, medium-risk buildings and buildings equipped with mechanical systems
Presence of hazardous materials
Proximity of electric conductors
Rescue operations

- Become familiar with structural firefighting protective clothing and with protection measures.

Features and maintenance standards
Features and limitations of protection measures

- Distinguish among the causes, circumstances and consequences of accidents.

Synthesis Phase

- Prepare a personal profile.
- Compare their profile with the requirements of the occupation and the training.
- Recognize their strengths (which will facilitate their work) and their weaknesses (which they will need to overcome).

Summary of preferences, aptitudes, personal qualities and required knowledge

Summary of their strengths and weaknesses

Competency 2 Duration 30 hours Credits 2

Behavioural Objective

Statement of the Competency

To handle hoses, nozzles and appliances.

Achievement Context

- Wearing structural firefighting protective clothing
- Using the standard inventory
- Referring to manufacturers' standards
- Following directions
- Working alone or as a member of a team
- At the fire station or in an emergency situation

Elements of the Competency**Performance Criteria**

1. Set up fire streams and supply lines.

- Careful selection of hoses and appliances
- Careful selection of nozzles
- Proper transportation methods
- Proper execution of assembly procedure
- Correct positioning of streams

2. Handle fire streams.

- Proper execution of modification procedure
- Proper, safe handling of streams
- Correct moving of streams

3. Assemble a portable pool-type water tank.

- Correct placement of tank
- Proper assembly sequence
- Correct assembly

4. Inspect, clean and store materials.

- Thorough inspection of materials
- Appropriate use of maintenance equipment and cleaning products
- Compliance with storage plan
- Compliance with manufacturers' standards

For the competency as a whole:

- Observance of occupational health and safety rules
- Observance of the limitations of tools and equipment

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Set up fire streams and supply lines.

- | | |
|---|---|
| • Select the hoses and appliances. | Types of hoses transported on the pumper
Water supply and discharge practices
Connections required for water supply and discharge
Handling of hoses and appliances |
| • Select the nozzles. | Fire streams: types and functions
Types of nozzles transported on the pumper
Handling of nozzles |
| • Distinguish among the transportation methods. | Usefulness of each method according to the type of operation being performed |
| • Couple and uncouple hoses. | Techniques involving one or two persons |
| • Establish a reserve. | Role of the reserve
Applications according to the type of operation |
| • Change the fire streams and supply lines. | Interruption of water supply from the pumper
Interruption of water supply using a hose clamp |

2. Handle fire streams.

- | | |
|---|---|
| • Distinguish among the techniques for moving around with a charged hose. | Safe techniques for moving around
Tasks and different roles related to moving around with a charged hose |
| • Apply the water. | Methods of opening and closing a nozzle
Safe handling techniques
Nozzle reaction
Stream patterns |

3. Assemble a portable pool-type water tank.

- Locate an appropriate area for assembling the tank.
- Recognize the importance of following the assembly sequence.

4. Inspect, clean and store materials.

- | | |
|---|--------------------------------|
| • Interpret manufacturers' standards. | Standards for inspecting hoses |
| • Distinguish among the methods of rolling hoses. | |
| • Distinguish among the methods of loading hoses on the pumper. | |

Competency 3 Duration 30 hours Credits 2

Behavioural Objective

Statement of the Competency

To conduct searches for victims in conditions involving heat and smoke.

Achievement Context

- Wearing structural firefighting protective clothing and a self-contained breathing apparatus (SCBA)
- Referring to standards of the Bureau de normalisation du Québec (BNQ) and NFPA
- Referring to manufacturers' standards
- Using maintenance sheets
- Based on an emergency response plan
- Working as a member of a team

Elements of the Competency**Performance Criteria**

1. Use an SCBA.

- Appropriate handling of apparatus
- Proper preparation of apparatus
- Thorough inspection of components
- Proper methods of donning and doffing apparatus
- Proper use of components
- Effective resolution of problems that may arise when using the apparatus
- Observance of maintenance standards

2. Move around in conditions involving heat and smoke.

- Appropriate inspection of the stability of surfaces
- Proper methods of moving around
- Appropriate use of hands
- Constant concern for maintaining balance
- Consideration of existing conditions

3. Participate in searching for victims.

- Proper methods of moving around
- Compliance with the search plan
- Correct application of search and marking techniques
- Effective communication methods

For the competency as a whole:

- Observance of occupational health and safety rules
- Effective stress management

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Use an SCBA.

- | | |
|--|--|
| • Recognize the types of SCBA. | Manufacturers, models and features
Role and operation of apparatus |
| • Distinguish among the components of an SCBA. | Purpose of components
Pressure reducer mechanism
Personal Alert Safety System (PASS) device
Main distress signals
Standards applicable to air pressure
Mechanical sounding device |
| • Don and doff an SCBA. | From a case
From mounting brackets
From a 911 seat
Safety rules
Techniques for inspecting the apparatus before and after use |
| • Change the cylinder of an SCBA. | Two-person method
One-person method |
| • Distinguish among emergency procedures in the event of SCBA failure. | Moving around without the apparatus
Sharing of apparatus with another person
Importance of emergency exits |
| • Inspect an SCBA. | Inspection points
BNQ and NFPA standards |
| • Clean an SCBA. | Cleaning and sanitizing products
Maintenance sheets
Manufacturing standards |
| • Store an SCBA. | Storage methods: case, mounting brackets, 911 seat |

2. Move around in conditions involving heat and smoke.

- | | |
|--|---|
| • Inspect the stability of a surface. | Importance of a firefighter's centre of gravity
Inspection method |
| • Recognize the heat and smoke conditions prevailing in a given space. | Identification of indicators and exterior signs |
| • Distinguish among the methods of moving around. | Methods of moving around on knees, in a crouched position or backwards
Clearing of obstructions
Spatial perception and sense of direction |

3. Participate in searching for victims.

- | | |
|--|--|
| • Develop a search plan. | Search situations
Useful information |
| • Distinguish among communication methods. | With the outside
With another person |
| • Apply search techniques. | Primary search technique
Secondary search technique |
| • Apply marking techniques. | Usefulness of marking |

Competency 4 Duration 45 hours Credits 3

Behavioural Objective

Statement of the Competency

To establish connections between combustion phenomena and building construction.

Achievement Context

- Using building classifications
- Referring to the *Guide des opérations à l'intention des services de sécurité incendie*
- For all types of buildings
- In an emergency situation

Elements of the Competency**Performance Criteria**

- | | |
|---|--|
| 1. Analyze the impact of fire load on the spread of a fire. | <ul style="list-style-type: none"> • Accurate analysis of the impact of fire load on fire spread • Consideration of all factors involved in fire spread • Accurate identification of modes of heat transfer |
| 2. Understand the structural elements of a building. | <ul style="list-style-type: none"> • Correct distinction of floor/ceiling assemblies, load-bearing walls, roof, roof space, doors and windows • Correct distinction of different types of fire separations • Accurate recognition of the fire resistance of materials and assemblies |
| 3. Anticipate how a fire will spread in a building. | <ul style="list-style-type: none"> • Accurate analysis of the impact of a building's characteristics on fire spread • Accurate analysis of the impact of construction defects on fire spread • Consideration of the type of occupation |
| 4. Assess the risk of a building collapsing. | <ul style="list-style-type: none"> • Accurate analysis of the impact of a building's characteristics on the risk of collapse • Visual identification of signs of deterioration • Visual identification of live and dead loads • Accurate recognition of the risk of collapse |

For the competency as a whole:

- Observance of occupational health and safety rules

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Analyze the impact of fire load on the spread of a fire.

- | | |
|---|---|
| <ul style="list-style-type: none"> • Distinguish among combustion models. | Interrelation of elements required for combustion
Basic combustion model (fire triangle)
Advanced combustion model (fire tetrahedron) |
| <ul style="list-style-type: none"> • Describe the concept of “fire load.” | Definition and theoretical calculation of load
Combustible materials and their reaction to fire |
| <ul style="list-style-type: none"> • Distinguish among the modes of heat transfer. | Radiation, conduction and convection |

2. Understand the structural elements of a building.

- | | |
|---|--|
| <ul style="list-style-type: none"> • Distinguish among the types of buildings. | Categories of construction
Characteristics and uses |
| <ul style="list-style-type: none"> • Distinguish among the structures. | Concept of “load bearing”
Roofs and roof spaces
Walls
Floor/ceiling assemblies
Doors and windows: features and operation |
| <ul style="list-style-type: none"> • Recognize the fire resistance of materials used in construction and assemblies. | Concepts
Role of structures when ventilating
Flame spread index |

3. Anticipate how a fire will spread in a building.

- | | |
|--|--|
| <ul style="list-style-type: none"> • Describe the phenomenon of fire spread. | Spread of heated gases
Impact of structures: role of natural openings |
| <ul style="list-style-type: none"> • Recognize the usefulness of the building classification when analyzing the probability of fire spread. | Building classifications and the <i>Guide des opérations à l'intention des services de sécurité incendie</i> |
| <ul style="list-style-type: none"> • Distinguish among hidden construction defects that have an impact on fire spread. | Types of hidden defects regarding floor/ceiling assemblies and walls |

4. Assess the risk of a building collapsing.

- | | |
|---|--|
| <ul style="list-style-type: none"> • Distinguish among the types of building collapse during a fire. | Types of collapse: walls, floors and roofs |
| <ul style="list-style-type: none"> • Identify signs that the building is at risk of collapsing. | Deterioration of materials and assemblies |
| <ul style="list-style-type: none"> • Determine the degree to which a building has deteriorated. | Signs of deterioration versus risk of collapse |

Competency 5 Duration 45 hours Credits 3

Behavioural Objective

Statement of the Competency

To access a building and its structure.

Achievement Context

- Wearing structural firefighting protective clothing
- Using the standard inventory
- Referring to manufacturers' standards
- Following operational instructions
- For all types of buildings

Elements of the Competency

Performance Criteria

1. Make openings in a building.

- Careful selection of tools and equipment
- Safe transportation of tools
- Consideration of factors related to fire spread

2. Access a building.

- Careful selection of equipment
- Appropriate transportation of ladders
- Correct erection and use of ladders

3. Ensure that the emergency scene is illuminated and that electric power is supplied.

- Careful selection of tools and equipment
- Compliance with manufacturers' standards

4. Perform salvage operations.

- Correct use of salvage covers
- Consideration of factors related to fire spread

5. Ensure that tools and equipment are maintained and stored.

- Proper inspection techniques
- Correct preparation of tools and equipment for the next emergency
- Compliance with storage plan
- Appropriate reporting

For the competency as a whole:

- Observance of occupational health and safety rules
- Proper use of tools and equipment
- Observance of the limitations of tools and equipment
- Careful handling of tools and equipment
- Quick, effective resolution of problems encountered

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Make openings in a building.

- | | |
|---|--|
| • Categorize the tools and equipment that are part of the standard inventory. | Standard inventory for a pumper
Standard inventory for a ladder truck |
| • Recognize the importance of safely handling and using tools and equipment. | |
| • Use tools. | Hand tools
Power tools: start-up sequence, two-phase and four-phase motors, types of combustibles |
| • Use ropes. | Knots and transportation
Safe method of handling ropes on roofs |
| • Select a work method appropriate for the operation to be performed. | Method and type of operation |

2. Access a building.

- | | |
|--|---|
| • Distinguish among the types of portable ladders. | Types of models transported on a fire vehicle
Components, features and functions of each type of model |
| • Transport portable ladders. | One-, two-, three- or four-person method
Transportation in confined spaces |
| • Erect and dismantle portable ladders. | Methods with or without folding hooks |
| • Move around on portable ladders. | Safe method of moving around
Moving around in a rescue situation |

3. Ensure that the emergency scene is illuminated and that electric power is supplied.

- | | |
|--|--|
| • Recognize the limitations of electric equipment. | Generator capacity
Power consumption of the equipment |
| • Set up electric equipment. | Methods of connecting wiring and equipment |

4. Perform salvage operations.

- | | |
|---|---|
| • Fold salvage covers. | One- or two-person methods
Single- and double-roll folds
Accordion fold |
| • Inspect, maintain and store salvage covers. | |

5. Ensure that tools and equipment are maintained and stored.

- Interpret manufacturers' standards.
- Distinguish among cleaning and maintenance products.
- Ensure the integrity of tools and equipment.

Correct preparation of tools and equipment for the next emergency
Appropriate lubrication, blade changes, painting, etc.

- Recognize the importance of complying with the storage plan.

Competency 6 Duration 45 hours Credits 3

Behavioural Competency

Statement of the Competency

To operate a fire vehicle.

Achievement Context

- At the fire station or in a response situation
- Referring to the *Highway Safety Code*
- Following regulations related to pre-departure inspection

Elements of the Competency**Performance Criteria**

1. Ensure the integrity of the fire vehicle.

- Systematic application of inspection procedure
- Proper inspection and maintenance techniques
- Respect for the limitations of the occupation
- Appropriate reporting

2. Manoeuvre a fire vehicle.

- Application of a visual scanning method
- Responsible, defensive driving
- Consideration of road conditions
- Appropriate use of visual and auditory signals
- Safe distances maintained
- Effective performance of manoeuvres

3. Perform braking and stopping operations.

- Safe distances maintained
- Effective performance of operations

4. Anticipate the risks associated with operating a fire vehicle.

- Accurate anticipation of risks
- Effective stress management
- Accurate recognition of exemptions related to driving in emergency situations

For the competency as a whole:

- Observance of occupational health and safety rules
- Compliance with the *Highway Safety Code*

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Ensure the integrity of the fire vehicle.

- | | |
|--|---|
| <ul style="list-style-type: none"> • Distinguish among the mechanical components of a fire vehicle. | Power train, braking system, suspension and specialized equipment
Visual identification of components |
| <ul style="list-style-type: none"> • Interpret the mechanical inspection procedures for a fire vehicle. | Standards for inspecting a heavy vehicle (Bill 430 or regulations related to pre-departure inspection)
Respect for the limitations of the occupation |
| <ul style="list-style-type: none"> • Make minor adjustments. | |

2. Manoeuvre a fire vehicle.

- | | |
|--|--|
| <ul style="list-style-type: none"> • Compare the manoeuvres for handling an automobile with those for a fire vehicle. | |
| <ul style="list-style-type: none"> • Distinguish among the manoeuvres for handling a fire vehicle. | Pivot point
Steering techniques
Lane-changing techniques
Techniques for a 180-degree turn |
| <ul style="list-style-type: none"> • Use a visual scanning method. | |
| <ul style="list-style-type: none"> • Analyze the impact of road conditions on driving and braking. | |

3. Perform braking and stopping operations.

- Compare the operations for braking and positioning an automobile with those for a fire vehicle.
- Estimate braking distances.
- Distinguish among methods of stopping a fire vehicle.

4. Anticipate the risks associated with operating a fire vehicle.

- | | |
|--|--|
| <ul style="list-style-type: none"> • Recognize the exemptions related to driving in emergency situations. | <i>Highway Safety Code</i>
Civil liability related to driving in emergency situations |
| <ul style="list-style-type: none"> • Recognize the rules for driving in emergency situations. | |

Competency 7 Duration 45 hours Credits 3

Behavioural Objective

Statement of the Competency

To establish the water supply for fire streams.

Achievement Context

- Wearing structural firefighting protective clothing
- Using portable pumps
- Using a pumper
- Referring to standards
- Using a head loss chart
- Following directions

Elements of the Competency**Performance Criteria**

1. Ensure the integrity of the pumper.

- Systematic application of inspection procedure
- Proper inspection and maintenance techniques
- Respect for the limitations of the occupation
- Appropriate reporting

2. Transfer power from the vehicle engine to the pump.

- Proper sequence for transferring power from the vehicle engine
- Careful work

3. Perform water supply operations.

- Proper sequence for priming the equipment
- Appropriate adjustment of equipment
- Correct transfer of the water supply source

4. Adjust fire stream pressure.

- Appropriate adjustment of pressure
- Appropriate use of pressure control device
- Use of fire streams ordered

5. Re-engage the pumper.

- Proper sequence for disengaging the pumper
- Proper sequence for re-engaging the pumper

For the competency as a whole:

- Proper use of tools and equipment
- Careful handling of equipment
- Observance of the limitations of the pumper's mechanical and electronic components
- Observance of occupational health and safety rules

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Ensure the integrity of the pumper.

- | | |
|--|---|
| <ul style="list-style-type: none"> Distinguish among the types of standard inspections. | Fuel level, priming oil level, winter position and summer position, leakproofness of pump, position of transfer valve
Full tank
Vehicle ready for the emergency |
|--|---|

2. Transfer power from the vehicle engine to the pump.

- | | |
|--|---|
| <ul style="list-style-type: none"> Distinguish among the mechanical components involved in the transfer operation. | Mechanism for transferring power from the axle to the pump drive
Vehicle control panel |
| <ul style="list-style-type: none"> Distinguish among the sequences for engaging the pump according to the type of transmission. | Vehicle equipped with automatic transmission
Vehicle equipped with standard transmission |
| <ul style="list-style-type: none"> Verify the pump panel to ensure that the pump is engaged. | |

3. Perform water supply operations.

- | | |
|--|---|
| <ul style="list-style-type: none"> Analyze the effect of the components on the sequence for priming the pump. | Role of primer
Static and pressurized water sources |
| <ul style="list-style-type: none"> Apply the priming sequence. | From the tank and primer
From the tank alone |
| <ul style="list-style-type: none"> Apply the sequence for switching from a static water source to a pressurized water source. | Effect of the mechanical components involved
Transfer from tank to hydrant |

4. Adjust fire stream pressure.

- | | |
|--|--|
| <ul style="list-style-type: none"> Distinguish among the measuring instruments used to perform supply operations. | Static pressure, dynamic pressure, residual pressure and flow pressure
Pressure gauge and flow meter
Intake/discharge pressure gauge |
| <ul style="list-style-type: none"> Apply a method of calculating head loss using a chart. | |
| <ul style="list-style-type: none"> Interpret the method of using pressure relief devices. | Mechanical device and electronic device |
| <ul style="list-style-type: none"> Recognize the problems encountered during pumping operations. | Problems related to water leaks, air leaks, motor overheating and pump overheating
Cavitation, vibration, water hammer and loss of water column |

5. Re-engage the pumper.

- Distinguish among the procedures for re-engaging the pumper.
- Make adjustments.

Disengagement sequence
Corrosion test, winter position and summer position

Tools and products
Importance of respecting the limitations of the occupation

Competency 8 Duration 75 hours Credits 5

Behavioural Objective

Statement of the Competency

To perform emergency operations involving a fire in a low-risk building and an exterior fire.

Achievement Context

- Wearing structural firefighting protective clothing
- Using tools, emergency equipment and an SCBA
- Referring to the *Guide des opérations à l'intention des services de sécurité incendie*
- Using a fire vehicle
- Referring to the *Highway Safety Code*
- Using communications equipment
- Based on an operating plan and instructions
- Working as a member of a team
- In buildings with fewer than four storeys
- For vegetation, waste, mailbox and car fires
- In an emergency situation

Elements of the Competency**Performance Criteria**

1. Answer the emergency call.

- Appropriate use of radio communications equipment
- Appropriate use of radio communications techniques and codes
- Effective establishment of communication priorities
- Rational use of radio waves
- Correct interpretation of messages
- Accurate identification of information useful for the situation

2. Go to the scene of the emergency.

- Accurate determination of route to the scene
- Safe driving techniques
- Visual identification of water sources
- Appropriate positioning of fire vehicle

3. Assess the emergency situation.

- Accurate recognition of risks to persons and property
- Consideration of the building's characteristics
- Consideration of fire development

4. Plan their work.

- Consideration of the firefighting tactic ordered
- Visual identification of natural openings
- Careful selection of tools and equipment
- Correct preparation of tools and equipment
- Observance of geographic sectors
- Accurate interpretation of operating plan

5. Perform operations.

- Proper work techniques
- Correct setup of fire and protection streams
- Appropriate use of equipment
- Correct application of extinguishing agent
- Correct method of attack
- Compliance with operating plan

For the competency as a whole:

- Proper use of tools and equipment
- Careful handling of tools and equipment
- Observance of the emergency response process
- Observance of their role in the team

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Answer the emergency call.

- Recognize the different steps in the emergency response process.

- Use communications equipment.

Communications equipment between the fire station and alarm central
Portable radio communications equipment

- Use radio codes and the International Telegraph Alphabet.

Guide des opérations à l'intention des services de sécurité incendie

- Distinguish among the types of information to obtain during a call.

- Distinguish among the types of information to obtain during a call regarding a fire involving a low-risk building or exterior fire.

Information useful for the emergency situation

- Transmit information to the team on duty.

Importance of the accuracy and precision of the information transmitted

2. Go to the scene of the emergency.

- Determine the route to the scene.

- Distinguish among the methods of positioning a fire vehicle.

Positioning for a vehicle fire
Positioning for a building fire
Safety zones
Water sources

3. Assess the emergency situation.

- Describe the circumstances of a fire in a low-rise building.
 - Building characteristics
 - Type of building
 - Fire development
- Establish the probability of having to perform emergency operations.
 - Risks to persons and property
 - Tools necessary for determining firefighting priorities: SERPEC, etc.

4. Plan their work.

- Distinguish among the components of an operating plan.
 - Geographic sectors
 - Functional sectors
 - Safety zones
 - Firefighting tactics
- Interpret an operating plan.
 - Concept of ventilation-attack
 - Firefighting methods
- Distinguish among firefighting tactics.
 - Firefighting tactics:
 - natural ventilation
 - forced ventilation
 - direct and indirect attacks
- Select the extinguishing materials and tools according to the firefighting tactic ordered.
 - Defensive method of protecting the building
 - Criteria for selecting the extinguishing materials
 - Booster line
 - 4' x 4' roof ventilation
 - Hydrodynamic ventilation
 - "Water supply to fire" attack method
 - Types of rescue operations

5. Perform operations.

- Use portable fire extinguishers.
 - Water extinguisher, CO₂ extinguisher, foam extinguisher, class K chemical extinguisher
- Set up natural ventilation.
 - Horizontal and vertical methods
- Turn off public utilities.
 - Electricity, gas and water
- Use fire and protection streams.
 - Direct and indirect attack method
 - Water application technique

Competency 9 Duration 45 hours Credits 3

Behavioural Objective

Statement of the Competency

To perform emergency operations involving hazardous materials.

Achievement Context

- Wearing structural firefighting protective clothing
- Using tools, emergency equipment and an SCBA
- Referring to the *Guide des opérations à l'intention des services de sécurité incendie*
- Using a fire vehicle
- Using communications equipment
- Referring to specialized documentation
- Based on an operating plan and instructions
- Working as a member of a team
- For spills of solid or liquid substances, gas leaks or a fire involving natural or propane gas

Elements of the Competency

Performance Criteria

1. Answer the emergency call.

- Appropriate use of radio communications equipment
- Appropriate use of radio communications techniques and codes
- Effective establishment of communication priorities
- Rational use of radio waves
- Correct interpretation of messages
- Accurate identification of information useful for the situation

2. Go to the scene of the emergency.

- Accurate determination of route to the scene
- Safe driving techniques
- Appropriate positioning of fire vehicle

3. Assess the emergency situation.

- Accurate recognition of risks to persons and property
- Accurate assessment of wind direction
- Consideration of the characteristics and effects of the hazardous materials involved

4. Plan their work.

- Consideration of the response tactic ordered
- Careful selection of tools and equipment
- Correct preparation of tools and equipment
- Observance of geographic sectors
- Accurate interpretation of operating plan
- Observance of operational sectors

- 5. Perform operations.
 - Proper work techniques
 - Correct establishment of safety zones
 - Correct establishment of work areas and operational sectors
 - Appropriate use of equipment
 - Observance of the limitations of their suit and personal protective equipment
 - Correct application of extinguishing agent
- 6. Prepare the equipment for the next emergency.
 - Thorough inspection of equipment used
 - Appropriate decontamination of the equipment used
 - Compliance with storage plan

For the competency as a whole:

- Proper use of tools and equipment
- Careful handling of tools and equipment
- Observance of the emergency response process
- Observance of their role in the team

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

- 1. Answer the emergency call.
 - Recognize the steps of an emergency response process involving hazardous materials.
 - Distinguish among the information allowing the hazardous materials in question to be identified.

Labelling systems for hazardous materials:
Transport Canada, Workplace Hazardous Materials Information System (WHMIS), NFPA
Identification of hazardous materials on the basis of containers
- 2. Go to the scene of the emergency.
 - Determine the initial isolation zone.
 - Recognize the importance of taking into account the geographic and climatic conditions when positioning the vehicle.
 - Apply methods of safely approaching the scene when hazardous materials are involved.

Consultation of the emergency response guidebook on dangerous goods published by Transport Canada (CANUTEC)

Positioning of vehicle according to potential dangers

3. Assess the emergency situation.

- Interpret specialized documentation on hazardous materials. Material safety data sheet
- Interpret an operating plan for an emergency situation involving hazardous materials. Geographic sectors, functional sectors, safety zones and firefighting tactics

4. Plan their work.

- Recognize the limitations of their suit, clothing and personal protective equipment. Class A, B, C and D clothing
Full firefighting suit and hazardous materials
- Prepare detection and measuring instruments, control and containment equipment as well as decontamination equipment. Detection and measuring instruments: test strips, gas detectors and explosimeters
Calibration techniques
Decontamination equipment: decontamination solutions

5. Perform operations.

- Use detection and measuring instruments.
- Use control and containment equipment.
- Use decontamination equipment.
- Control a leak. Techniques to be used with a wastewater system
Techniques for stopping leaks in containers, reservoirs and tanks
- Contain a leak.
- Prepare a decontamination site. Decontamination steps
Decontamination pool
Decontamination equipment
- Extinguish a fire involving hydrocarbons. Types of emulsifiers
Techniques for applying foam
- Decontaminate persons. Decontamination techniques
Decontamination control: use of hose, wastewater recovery

6. Prepare the equipment for the next emergency.

- Clean the equipment. Disposal protocol
Cleaning and decontamination

Competency 10 Duration 30 hours Credits 2

Behavioural Objective**Statement of the Competency**

To perform on-site salvage and overhaul operations.

Achievement Context

- Wearing structural firefighting protective clothing
- Using tools, emergency equipment and an SCBA
- Following directions

Elements of the Competency**Performance Criteria**

1. Protect property against water damage.

- Selection of appropriate salvage techniques and equipment
- Accurate assessment of avoidable damage
- Effective draining of water

2. Remove smoke from a building.

- Careful selection of tools and equipment
- Determination of the appropriate ventilation method

3. Perform overhaul and surveillance operations.

- Careful selection of tools and equipment
- Proper disposal of debris
- Observance of safety zone

4. Protect clues useful in establishing the cause of fire.

- Accurate determination of clues useful in establishing the cause of fire
- Appropriate protection

For the competency as a whole:

- Observance of occupational health and safety rules
- Proper use of tools and equipment
- Observance of the limitations of tools and equipment
- Careful handling of tools and equipment

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Protect property against water damage.

- Distinguish among the salvage operations to be performed during an emergency.

Firefighter's responsibility with respect to salvage and overhaul
Ethics

- Cover movable property. Prior arrangement of furnishings
Building capacity versus live loads to be moved
 - Drain water from a building. Use of a submersible pump
Fabrication of a water chute and catch-all
 - Use equipment for stopping water flow from a sprinkler head. Components and usefulness of the equipment
Correct preparation of equipment for the next emergency
2. Remove smoke from a building.
- Apply ventilation methods. Natural ventilation and forced ventilation
 - Distinguish among forced ventilation equipment. Electric smoke ejector
Installation method
 - Determine the openings to be made in order to remove smoke from the building.
3. Perform overhaul and surveillance operations.
- Describe an automatic fire suppression system.
 - Use overhaul tools. Hand tools, power tools and lighting
 - Determine the openings to be blocked after extinguishing the fire. Types of openings to block
 - Block openings. Materials and equipment
 - Apply methods of removing debris. Operational techniques, use of openings and safety zone
4. Protect clues useful in establishing the cause of fire.
- Distinguish among the clues useful in establishing the cause of fire. Clues: charring and burn pattern
Clues to be gathered upon arrival at the site
 - Recognize the means of protecting and preserving clues useful in establishing the cause of fire.

Competency 11 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency

To act as a First Responder.

Achievement Context

- As part of an emergency response operation
- In predetermined situations
- Working as a member of a team
- In cooperation with other emergency response teams
- Following emergency medical protocols available to First Responders
- In accordance with current laws and regulations
- Using a first aid kit, life support kit, immobilization device and oxygen therapy equipment

Elements of the Competency**Performance Criteria**

1. Analyze the call information.

- Identification of the type of medical situation
- Medical situation described is related to the age and gender of the person(s) involved and the type of incident
- Representation of the geographic location of the incident
- Gathering of pertinent supplemental information

2. Assess the situation at the scene of the emergency.

- Consideration of potential hazards
- Effective means for ensuring the safety of emergency workers, victims and the site itself
- Determination of the exact number of victims
- Identification of any visual clues that contributed to the incident
- Consideration of legal and medical aspects related to the incident
- Transmission of a request for additional assistance, as needed
- Gathering of data from others at the scene to help determine the overall context of the incident

3. Conduct a clinical assessment of the victim(s).
 - Adequate preparation of the person for examination
 - Completion of a primary survey, take vitals and question the victim, in the case of a medical complaint
 - Completion of a primary survey, take vitals, question the victim and conduct a secondary (physical) survey, in the case of a trauma
 - Determination of appropriate protocol in light of the examination conducted
4. Apply medical protocols to reduce mortality and morbidity in relation to:
 - cardiac-respiratory arrest
 - airway obstruction
 - respiratory failure
 - anaphylaxis
 - trauma
 - In accordance with the situation and medical protocol
 - Application of cardiopulmonary resuscitation techniques using supplementary equipment and an Automated External Defibrillator (AED)
 - Application of ventilation techniques using a pocket mask and bag-valve mask
 - Administration of adrenaline using an auto injector
 - Administration of oxygen using appropriate equipment
 - Application of techniques for stabilizing victims following a trauma
5. Recognize clinical situations involving:
 - medical problems
 - obstetrical problems
 - pediatric problems
 - environmental problems
 - industrial problems
 - traumas
 - incidents requiring triage
 - medical-legal contexts
 - Familiarity with inclusion and exclusion criteria
 - Familiarity with the specific care to provide for each situation
 - Familiarity with the parameters that will serve as guidelines in the case of medical-legal contexts
6. Transfer responsibility for emergency care to the paramedic ambulance technician.
 - Transmission of relevant verbal or written information
 - Assistance provided to paramedic ambulance technician, upon request
 - Use of prehospital system terminology

For the competency as a whole:

- Formal follow-up of protocols
- Appropriate communications adapted to the situation
- Respect for victims
- Standard use of specialized equipment
- Observance of rules and regulations
- Observance of rules of health, safety and asepsis

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Analyze the call information.

- Recognize the role and responsibility of a First Responder in providing emergency care.
 - Recognize the role and responsibility of the other members of the emergency team and auxiliary services.
 - Describe various clinical situations involving emergency care.
 - Recognize the type of emergency call.
 - Identify the pertinent questions for the type of call.
 - Determine the probable difficulties given the incident and its geographic location.
- Organization of health care and prehospital system,
mission of the emergency prehospital system
Emergency response chain
Role and duties of a First Responder
Medical protocols

2. Assess the situation at the scene of the emergency.

- Categorize the types of hazards, verify the type of incident and observe the scene.
 - Be familiar with aseptic techniques.
 - Use means of protection.
 - Follow the organizational structure in place.
 - Recognize clues that justify the gathering of additional information.
 - Be familiar with the applicable protocol(s).
- Assessment of the scene: potential hazards: explosion, fire, electrocution, collapse, landslide, drowning or accident (debris, rolled over vehicle); no risks; controllable risks; uncontrollable risks
Assessment and coding of victims: concept of triage: START method
Safety of work area
Data gathering: assessment of victim and unfolding of events
Risks associated with emergency care: infections, bacteria and viruses
Means of protection: latex gloves, glasses, face guard, facemask and apron, etc.

3. Conduct a clinical assessment of the victim(s).

- Distinguish among and adapt to the specific features of the clientele being served.
 - Recognize the functions of the cardiovascular and respiratory systems.
 - Identify the systems in the human body.
 - Distinguish among the applicable protocols.
 - Recognize the need for an empathetic approach to the victim.
- Presentation, courtesy, empathy, reassuring attitudes
Overall structure of the anatomical and physiological systems and how they are interrelated
Terminology

4. Apply medical protocols to reduce mortality and morbidity in relation to:

- cardiac-respiratory arrest
- airway obstruction
- respiratory failure
- anaphylaxis
- trauma
- Distinguish among the techniques of cardio-respiratory resuscitation.
- Distinguish among and use supplementary resuscitation equipment.
- Properly use auto-injectors in cases of anaphylaxis.
- Use equipment for stabilizing victims of trauma.
- Move the victims.
- Distinguish among the techniques for controlling hemorrhaging.
- Before applying medical protocols:
 - Recognize the applicable protocol for the situation.
 - Recognize the clinical situations that require stabilizing the spine.
 - Recognize the situations that require a rapid descent.
 - Recognize the situations that require rapid transport.

Standards from the Fondation des maladies du cœur du Québec (FMCQ)
 Medical protocols: resuscitation; medical problems; trauma problems
 Use of life support equipment: oropharyngeal airway, suction apparatus, automated external defibrillator (AED), etc.
 Adrenaline auto-injector
 Oxygen therapy equipment
 Trauma-specific equipment: cervical collar, spinal board, etc.
 Types of wounds, types of hemorrhage and complications

5. Recognize clinical situations involving:

- medical problems
- obstetrical problems
- pediatric problems
- environmental problems
- industrial problems
- trauma
- incidents requiring triage
- Be familiar with the inclusion and exclusion criteria specific to certain clinical situations.
- Be familiar with the care specific to certain clinical situations.

Protocols: disaster situation; industrial problems; environmental problems; medical problems; obstetrical problems; pediatric problems; medical-legal contexts; traumas; technical protocols
 Vacuum immobilization mattress, KED, etc.

6. Transfer responsibility for emergency care to the paramedic ambulance technician.

- Recognize the importance of working with paramedic ambulance technicians.

Protocols: prehospital clinical approach; transfer of responsibilities

Competency 12 Duration 45 hours Credits 3

Behavioural Objective

Statement of the Competency

To establish a water supply and set up high-flow equipment.

Achievement Context

- Wearing structural firefighting protective clothing
- Using a pumper
- Referring to standards
- Using firefighting high-flow equipment

Elements of the Competency

Performance Criteria

1. Prepare the high-flow equipment.

- Proper sequence for assembling the equipment
- Appropriate setup of equipment

2. Perform water supply operations.

- Proper sequence for establishing water supply
- Proper sequence for transferring power from the vehicle engine
- Correct adjustment of initial pressures

3. Adjust the pressure for high-flow streams.

- Accurate analysis of information regarding the quality of water supply
- Accurate calculation of pump flow
- Appropriate use of a pressure control device
- Appropriate adjustment of equipment
- Correct use of transfer valve

4. Periodically inspect and maintain the vehicle.

- Appropriate inspection of primer
- Appropriate inspection of the pump's mechanical components
- Accurate interpretation of results of capacity tests on the pump

For the competency as a whole:

- Proper use of tools and equipment
- Careful handling of tools and equipment
- Observance of the limitations of the pumper's mechanical and electronic components
- Observance of occupational health and safety rules
- Correct, safe moving of persons while using tools and equipment

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Prepare the high-flow equipment.

- | | |
|--|---|
| • Apply the sequence for assembling a deluge gun. | Types of guns and methods of installation |
| • Apply the sequence for supplying water from fire department connections. | Method of supplying water from a fire department connection |

2. Perform water supply operations.

- | | |
|---|---|
| • Use a mechanical method of water supply. | |
| • Use a supply method from the water source and from the point of attack. | |
| • Recognize the problems encountered during water supply operations. | Loss of pressurized water supply
Loss of priming
Common mechanical breakdowns |

3. Adjust the pressure for high-flow streams.

- | | |
|--|---|
| • Perform calculations of head loss, flow and dynamic pressure. | Hydraulic laws
Hydraulic formulas |
| • Distinguish among the techniques for using a double impeller pump. | Operation and mechanical components of a double impeller pump
Bypass valve |

4. Periodically inspect and maintain the vehicle.

- | | |
|--|-------------------------------|
| • Recognize a firefighter's tasks related to inspecting and maintaining a vehicle. | Limitations of the occupation |
| • Perform capacity tests on the pump. | Standards
Pump chart |

Competency 13 Duration 45 hours Credits 3

Behavioural Competency

Statement of the Competency

To perform emergency operations involving a fire in an attached low-rise building and a large building.

Achievement Context

- In an emergency situation
- In buildings with fewer than five storeys
- Working as a member of a team
- Based on an operating plan and instructions
- Using an incident management system
- Wearing structural firefighting protective clothing
- Using tools, emergency equipment and an SCBA
- Referring to the *Guide des opérations à l'intention des services de sécurité incendie*
- Using a fire vehicle
- Referring to the *Highway Safety Code*
- Using communications equipment

Elements of the Competency

Performance Criteria

- | | |
|--------------------------------------|---|
| 1. Go to the scene of the emergency. | <ul style="list-style-type: none"> • Accurate determination of route to the scene • Safe driving techniques • Visual identification of water sources • Appropriate positioning of fire vehicle |
| 2. Assess the emergency situation. | <ul style="list-style-type: none"> • Accurate recognition of risks to persons and property • Consideration of the building's characteristics • Consideration of fire development |
| 3. Plan their work. | <ul style="list-style-type: none"> • Consideration of the firefighting tactic ordered • Visual identification of the building's natural openings and fire protection systems • Careful selection of tools and equipment • Correct preparation of tools and equipment • Observance of geographic sectors • Accurate interpretation of operating plan |
| 4. Perform operations. | <ul style="list-style-type: none"> • Proper work techniques • Correct setup of fire and protection streams toward the roof • Correct application of extinguishing agent • Correct method of attack • Compliance with operating plan • Appropriate examination of building structure • Effective resolution of problems related to salvage and overhaul |

For the competency as a whole:

- Proper use of tools and equipment
- Careful handling of tools and equipment
- Observance of the emergency response process
- Observance of their role in the team

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Go to the scene of the emergency.

- Distinguish among the methods of positioning a pumper.
 - Positioning involving several vehicles near an attached building
 - Positioning near a large building equipped with an automatic sprinkler system
 - Safety zones

2. Assess the emergency situation.

- Describe the circumstances of a fire in an attached low-rise building or large building.
 - Spread of fire in the attached wood structure
 - Concept of fire separations
 - Type of building
 - Fire load

3. Plan their work.

- Interpret an operating plan.
 - Functional and geographic sectors: attached buildings and large buildings
- Recognize the importance of an incident management system.
 - Features and usefulness of an incident management system
 - Chain of command
 - Decision-making levels
- Distinguish among firefighting tactics.
 - Firefighting tactics: stop the fire from spreading to other buildings; apply a defensive method of protecting the building; stop the fire from spreading to the roof; set up positive pressure ventilation
- Select the extinguishing agent and tools according to the firefighting tactic ordered.
 - “Water supply to fire” attack method
 - Trench (strip) ventilation
 - Detection materials
 - Mechanical smoke ejectors

4. Perform operations.

- Use natural openings for ventilating the roof.
 - Flashing, fire separations, skylights, roof space ventilation

- | | |
|---|--|
| • Use master streams. | Protection of building
Defensive method |
| • Set up positive pressure ventilation. | Openings and fan |
| • Recognize the importance of using class A foam. | Characteristics and qualities
Extinguishing operations
Salvage and overhaul operations |
| • Direct fire streams toward the roof. | Layout of equipment
Hazards associated with the setup |
| • Use standpipe systems. | Class 1 and 3 |

Competency 14 Duration 30 hours Credits 2

Behavioural Objective

Statement of the Competency

To manoeuvre a ladder truck.

Achievement Context

- Wearing structural firefighting protective clothing
- Referring to standards
- For all types of ladder trucks
- In a firefighting or rescue situation
- At the fire station

Elements of the Competency**Performance Criteria**

1. Ensure the integrity of the ladder truck.

- Systematic application of inspection procedure
- Proper inspection and maintenance techniques
- Respect for the limitations of the occupation
- Appropriate reporting

2. Position the ladder truck.

- Accurate analysis of the situation
- Consideration of ground characteristics and condition
- Proper sequence for stopping the vehicle
- Proper sequence for engaging elevating equipment

3. Stabilize the ladder truck.

- Choice of appropriate stabilization method
- Proper sequence for stabilizing the vehicle

4. Manoeuvre the elevating equipment.

- Performance of appropriate operation
- Correct performance of operation

For the competency as a whole:

- Demonstration of diligence
- Careful handling of equipment
- Observance of the limitations of the vehicle
- Observance of occupational health and safety rules

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Ensure the integrity of the ladder truck.

- Distinguish among the power transfer components.

Auxiliary transmission versus auxiliary power takeoff

<ul style="list-style-type: none"> Distinguish among the stabilization components. 	<ul style="list-style-type: none"> Types of jacks Safety mechanisms
<ul style="list-style-type: none"> Distinguish among the components of the elevating equipment. 	<ul style="list-style-type: none"> Types of aerial ladders Types of elevating platforms Hybrid vehicle Lifting mechanisms Safety mechanisms
<ul style="list-style-type: none"> Distinguish among the components of a hydraulic system. 	<ul style="list-style-type: none"> Hydraulic system: components for stabilizing the vehicle and components for deploying the equipment Safety valves Breakdown repair equipment
<ul style="list-style-type: none"> Apply the procedure and techniques for inspecting a ladder truck. 	<ul style="list-style-type: none"> Inspection of hydraulic components Inspection of stabilizing and elevating equipment
<ul style="list-style-type: none"> Make minor adjustments. 	
2. Position the ladder truck.	
<ul style="list-style-type: none"> Analyze the impact of the vehicle's position on the manoeuvre to be performed. 	<ul style="list-style-type: none"> Working on a roof Rescue situation
<ul style="list-style-type: none"> Apply the sequence for transferring power from the vehicle engine to the stabilizing and elevating equipment. 	
<ul style="list-style-type: none"> Recognize the safety measures to be taken when positioning the vehicle. 	
3. Stabilize the ladder truck.	
<ul style="list-style-type: none"> Determine the stabilization sequence according to the type of jack. 	<ul style="list-style-type: none"> A, H, arc and X jacks
<ul style="list-style-type: none"> Recognize the safety measures to be taken when stabilizing the vehicle. 	
4. Manoeuvre the elevating equipment.	
<ul style="list-style-type: none"> Operate the elevating equipment. 	<ul style="list-style-type: none"> Aerial ladders Elevating platforms Water towers
<ul style="list-style-type: none"> Distinguish among the sequences for operating elevating equipment. 	<ul style="list-style-type: none"> Sequence providing access to a roof Sequence providing access to a balcony Sequence providing access to windows Operation, rotation and lowering
<ul style="list-style-type: none"> Recognize the safety measures to be taken when positioning elevating equipment. 	
<ul style="list-style-type: none"> Work in a breakdown situation. 	<ul style="list-style-type: none"> Electric system and manual system

Competency 15 Duration 30 hours Credits 2

Situational Competency

Statement of the Competency

To interact with the members of a fire station.

Elements of the Competency

- Learn about the basic principles of interpersonal communication.
- Learn about phenomena related to group dynamics and teamwork.
- Learn about the symptoms and effects of stress associated with fire station life.
- Use conflict-resolution strategies.
- Assess their ability to modify their behaviour and adapt to situations related to fire station life.

Learning Context

Information Phase

- Learning about the basic principles of interpersonal communication.
- Learning about the symptoms and effects of stress associated with fire station life.
- Learning about conflict-management techniques.

Participation Phase

- Experimenting with situations related to fire station life.
- Experimenting with conflict-resolution strategies.
- Recognizing their reactions to differences and diversity in personalities.
- Discussing the importance of adjusting their attitudes.
- Identifying means of adjusting their attitudes.
- Identifying the attitudes to be promoted and the conflict-resolution strategies to be applied in various hypothetical situations.

Synthesis Phase

- Producing a report making connections between the quality of fire station life and the quality of teamwork.

Learning Context

- Ensure that specialized documentation is available.
- Use hypothetical situations and role-plays representative of the work activities or professional life of firefighters.
- Provide students with the means to experiment with conflict-resolution strategies.
- Encourage students to participate to the best of their abilities.
- Help the students to express their opinions on the attitudes to be promoted at the fire station.

Participation Criteria

Information Phase

- Carefully examine the documentation.
- Gather information on most of the topics to be covered.

Participation Phase

- Examine their reactions to experiences of fire station life.
- Participate in hypothetical situations, showing interest in the topics covered.
- Express their opinions on the measures that firefighters must take to prevent problem situations from arising at a fire station.

Synthesis Phase

- Participate in discussions, showing interest in the topics covered.
- Analyze hypothetical situations.
- Produce a report.

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each phase of the learning context, along with their attendant guidelines.

Information Phase

- | | |
|---|--|
| <ul style="list-style-type: none"> • Be receptive to information on interpersonal communication. | Importance of communication in the workplace
Rational and emotional nature of a message
Verbal and nonverbal messages
Obstacles to communication
Normal situations versus problem situations |
| <ul style="list-style-type: none"> • Be receptive to information on group dynamics. | Individual resistance
Leadership, collaboration, competition, cohesion, conflict, consensus and relationships of influence |

Participation Phase

- | | |
|--|--|
| <ul style="list-style-type: none"> • Anticipate how they plan on integrating into a work team. | Differences between perceptions and the reality of fire station life
Sources of stress associated with fire station life
Phases of adaptation
Perception of the connection between time management and work performance |
| <ul style="list-style-type: none"> • Become aware of the reactions that they or their colleagues may experience. | Expected behaviours versus demonstrated behaviours |
| <ul style="list-style-type: none"> • Identify the elements related to fire station life that may impact their motivation at work. | Types of motivation: intrinsic and extrinsic
Atmosphere and performance
Means of maintaining or improving their motivation |

- Recognize the importance of helping maintain quality relationships among team members.

Correct attitudes for conflict-resolution strategies
Not getting involved in conflicts between other colleagues

Synthesis Phase

- Identify concrete means of adapting their approach to individuals and situations.
- Prepare a summary report.

Summary of the strengths that will facilitate communication as well as the weaknesses that need to be overcome
Summary of their current and future needs

Competency 16 Duration 75 hours Credits 5

Situational Objective

Statement of the Competency

To prevent physical health problems.

Elements of the Competency

- Define personal physical fitness objectives.
- Undertake a physical fitness program.
- Learn about the concrete measures to be applied to prevent back and joint injuries.
- Learn about the symptoms and physical effects that firefighters may experience before, during and after an emergency situation.
- Recognize the importance of maintaining a healthy weight.

Learning Context

Information Phase

- Learning about the fitness training techniques that are useful in practising the occupation.
- Learning about the physical symptoms that firefighters may experience before, during and after an emergency situation.
- Learning about the factors that influence back and joint injuries.
- Learning about the different types of physical fitness training.
- Making connections between the prevention of physical health problems and the prevention of psychological health problems.

Participation Phase

- Being aware of their physical fitness.
- Identifying concrete means of improving their physical fitness in the short, medium and long term.
- Experimenting with various training techniques.
- Experimenting with various muscle and general relaxation techniques.
- Keeping a log of their physical activity and observations on the progress of their training.

Synthesis Phase

- Presenting means of sustaining their long-term commitment to a personal fitness program.
- Completing their training record.

Instructional Guidelines

- Ensure that specialized documentation is available.
- Use hypothetical situations representative of the workplace.
- Provide students with appropriate support and supervision.
- Encourage students to participate to the best of their abilities.
- Encourage students to train on a regular basis.

Participation Criteria

Information Phase

- Consult the documents made available to them.
- Gather information on most of the topics to be covered.
- Assess their physical fitness.

Participation Phase

- Establish a training program and personal objectives.
- Recognize standards applicable in the workplace.
- Participate in activities.
- Express their opinions on the measures that firefighters can take to prevent physical health problems.

Synthesis Phase

- Re-assess their physical fitness.
- Confirm that their personal training objectives have been met.
- Participate in discussions, showing interest in the topics covered.
- Present a summary of their training record.

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each phase of the learning context, along with their attendant guidelines.

Information Phase

- | | |
|---|---|
| <ul style="list-style-type: none"> • Be receptive to general information on physical fitness and training. | Common injuries and causes of death
Physical challenges of the occupation: excessive heat, stress and repetitive tasks
Aerobic capacity and muscle groups used in training
Effects of poor physical fitness
Effects of training and adaptation of the body
Nutritional needs before and after training |
| <ul style="list-style-type: none"> • Distinguish among the five determining factors of physical fitness. | Oxygen delivery system
Muscle strength, endurance and flexibility
Low body fat percentage
Quality of posture
Ability to relax |
| <ul style="list-style-type: none"> • Distinguish among weight-control measures. | Healthy weight
Eating habits
Body mass index and muscle mass index
Role of cholesterol |
| <ul style="list-style-type: none"> • Distinguish among back injuries as well as injuries to the arms and legs. | Tendon and muscle injuries
Stages of injury: acute (0-24 hours), sub-acute (24-48 hours), chronic (more than 48 hours)
Tissue healing stage |

<ul style="list-style-type: none"> Take tests. 	Shuttle run test, firefighter physical fitness test, pull-ups, leg curls, bench press, flexibility test, abdominal test, etc. Pre-assessment
Participation Phase	
<ul style="list-style-type: none"> Recognize the importance of techniques for preventing back and joint injuries and experiment with these techniques. 	Back anatomy, back mechanics and lumbar injuries Strengthening and relaxation exercises Importance of good posture First aid: tendon and muscle injuries
<ul style="list-style-type: none"> Recognize the importance of muscle training techniques and experiment with these techniques. 	Muscle strength and endurance General principles and training systems Measures to prevent musculoskeletal injuries related to muscle training
<ul style="list-style-type: none"> Recognize the importance of muscle and general relaxation techniques and experiment with these techniques. 	Recognition of muscle tension Types of breathing: abdominal, thoracic, diaphragmatic Importance of controlling breathing Methods of relaxation and phases from training to relaxation Stress, burnout and behaviour
<ul style="list-style-type: none"> Recognize the importance of techniques for developing the oxygen delivery system and experiment with these techniques. 	Energy production systems: aerobic and anaerobic Running: biomechanical elements used, proper technique, measures to prevent musculoskeletal injuries Optimum oxygen absorption: basic principles of training (overload, specificity, progression, recovery, individuality)
<ul style="list-style-type: none"> Recognize the importance of being able to take advantage of all training opportunities. 	
<ul style="list-style-type: none"> Complete a personalized training record. 	Phase of a training program
<ul style="list-style-type: none"> Show concern for improving their performance on tests. 	Pre-test: comparison of test results
Synthesis Phase	
<ul style="list-style-type: none"> Recognize the impact of developing their aerobic capacity and muscle groups on endurance and performance in the workplace. 	
<ul style="list-style-type: none"> Recognize the importance of increasing their physical endurance and controlling their weight. 	
<ul style="list-style-type: none"> Recognize the importance of attaining their personal objectives. 	Comparison of test results

- Prepare a summary report.

Summary of the strengths that will help them prevent physical health problems as well as the weaknesses they will have to overcome
Summary of their current and future needs

Competency 17 Duration 30 hours Credits 2

Behavioural Objective

Statement of the Competency

To set up and establish the water supply from one fire vehicle to another.

Achievement Context

- Wearing structural firefighting protective clothing
- Using portable pumps
- Using several vehicles and two pumpers
- Referring to standards
- Using a head loss chart

Elements of the Competency**Performance Criteria**

1. Perform operations for supplying water from one pumper to another.
2. Perform booster pumping operations.
3. Use high-flow equipment.

- Proper sequence for establishing water supply
- Proper sequence for transferring power from the vehicle engine
- Correct adjustment of initial pressures
- Proper handling of hoses
- Proper sequence for setting up hoses
- Correct adjustment of pressures
- Effective communication between operators
- Appropriate preparation of equipment
- Safe, correct method of moving around while using equipment

For the competency as a whole:

- Proper use of tools and equipment
- Careful handling of tools and equipment
- Correct inspection and preparation of equipment for the next emergency
- Observance of the limitations of the vehicles' mechanical and electronic components
- Observance of occupational health and safety rules

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Perform operations for supplying water from one pumper to another.
 - Recognize the role of the pumper operator. Operations involved when using several pumpers
Distinctive features of these types of operations

- Use methods of supplying water from more than one pumper. Simultaneous arrival of pumpers
Relay pumping
- 2. Perform booster pumping operations.
 - Use booster pumping methods. “Semi-pro” method
“Pro” method
 - Analyze the impact of discharge pressure on the pumper’s performance. Calculation of pump pressure
 - Establish radio communications between operators. Exchange of information on discharge pressure, residual pressure and the RPM of pumper engines
- 3. Use high-flow equipment.
 - Apply the sequence for assembling a fixed or detachable ladder pipe.
 - Establish the water supply for a ladder truck with fixed piping.

Competency 18 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency

To perform emergency operations involving a fire in a high-occupancy building.

Achievement Context

- In an emergency situation
- In a densely populated building or tunnel
- Working as a member of a team
- Using an incident management system
- Based on an operating plan and instructions
- In the presence of energized electric equipment
- Wearing structural firefighting protective clothing
- Using tools, emergency equipment and an SCBA
- Referring to the *Guide des opérations à l'intention des services de sécurité incendie*
- Using a fire vehicle
- Referring to the *Highway Safety Code*
- Using communications equipment
- Using evacuation measures and a search plan

Elements of the Competency**Performance Criteria**

1. Assess the emergency situation.

- Accurate recognition of risks to persons and property
- Consideration of the building's characteristics
- Consideration of fire development
- Visual identification of the building's fire protection systems
- Identification of risks associated with energized electric equipment

2. Plan their work.

- Consideration of the firefighting tactic ordered
- Careful selection of tools and equipment
- Observance of geographic sectors
- Accurate interpretation of operating plan
- Appropriate search plan
- Planning of measures required in the presence of energized electric equipment

3. Perform operations.

- Proper work techniques
- Appropriate use of equipment and the building's fire protection systems
- Correct application of extinguishing agent
- Correct method of attack
- Compliance with operating and search plans
- Appropriate examination of building structure
- Effective resolution of problems related to salvage and overhaul
- Appropriate use of techniques for stabilizing victims

For the competency as a whole:

- Proper use of tools and equipment
- Careful handling of tools and equipment
- Observance of the emergency response process
- Observance of their role in the team

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Assess the emergency situation.

- | | |
|--|--|
| • Show concern for safely positioning the vehicle. | Positioning of vehicle with respect to energized electric equipment
Safety zones |
| • Describe the circumstances of an evacuation of a building or tunnel. | Use of building according to the <i>National Building Code</i>
Safety elements: means of egress, access to exit(s) |
| • Describe the circumstances of an emergency situation involving energized electric equipment. | Types of electric distribution equipment
Types of electric transformer equipment
Medium- or high-voltage equipment |

2. Plan their work.

- | | |
|---------------------------------|--|
| • Interpret an evacuation plan. | Tasks of occupants
Designated safe area
Floor plans
Role and responsibilities of the fire department
Setup of rest area
Triage sector |
| • Interpret an operating plan. | |

- Distinguish among firefighting tactics. Search methods specific to high-occupancy buildings
Method of evacuating high-occupancy buildings
 - Distinguish among installed fire protection systems. Halon system, fixed dry powder system and fixed CO₂ system
3. Perform operations.
- Distinguish among search methods. Method for buildings with movable partition walls
Method for large buildings
Method for buildings with fixed seating
Method for buildings with shelving
Method for buildings with multiple rooms
Method for high-rise buildings
 - Apply the method of ventilating a manhole. Energized electric equipment
Readings of toxic gases
Method of setting up a fan
 - Use an installed communication system. Firefighter phone and voice communication system
 - Use the technical equipment in a tunnel. Standpipe system, ladder and ventilation system

Competency 19 Duration 75 hours Credits 5

Behavioural Objective

Statement of the Competency

To carry out prevention activities.

Achievement Context

- Referring to applicable regulations and standards
- Using forms, reports and sketches
- For a dwelling, school or building requiring an emergency response plan

Elements of the Competency**Performance Criteria**

1. Conduct fire safety inspections.

- Correct inspection methods
- Identification of irregularities with respect to fire safety hazards
- Accurate, relevant information transmitted
- Appropriate demonstrations to occupants
- Courteousness

2. Formulate notices with respect to residential fire protection.

- Relevance of notices in terms of the protection required as well as the location and installation of alarms and extinguishers
- Relevant corrective measures suggested
- Clear information conveyed in everyday terms
- Use of appropriate forms

3. Identify and report situations that are problematic in terms of fire safety.

- Relevant identification
- Accurate, precise description of the problem observed
- Appropriate reporting

4. Gather and record data related to an emergency response plan.

- Effective planning of data collection
- Exhaustive collection of data
- Precise sketch of premises
- Use of appropriate documents
- Thorough recording of data

For the competency as a whole:

- Observance of occupational health and safety rules
- Consideration of the building's physical characteristics
- Concern for professional ethics

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Conduct fire safety inspections.

- Recognize the role and tasks of a firefighter in matters related to residential fire safety. Residential inspection method used by the Ministère des Affaires municipales et des Régions
- Adopt a client-centred approach.
- Distinguish among the standards applicable to residential fire safety. Standards related to heating systems, electrical panels and electric appliances
Standards related to fire protection equipment: smoke detector, carbon monoxide detector, portable fire extinguisher
- Identify irregularities with respect to evacuating a residence. Concepts of “exit” and “means of egress”
Rules: setup of permanent means of egress, setup of temporary means of egress, obstruction-free exits and means of egress
- Identify irregularities with respect to fire safety hazards in a residence. Acceptable risks versus unacceptable risks
Combustible waste, flammable liquids, hazardous materials and technical installations for cooking fats

2. Formulate notices with respect to residential fire protection.

- Complete an inspection report.
- Write notes.

3. Identify and report situations that are problematic in terms of fire safety.

- Categorize the types of hazards. Hazards to individuals, property and firefighters

4. Gather and record data related to an emergency response plan.

- Interpret an emergency response plan. Usefulness and characteristics of an emergency response plan
Sections of an emergency response plan: structural elements, means of egress, mechanical equipment, fire protection systems, fire detection systems
- Categorize the types of emergency response plans. NFPA 1620 standard
- Distinguish among the forms used to prepare an emergency response plan. Sketch and implementation plan

Competency 20 Duration 30 hours Credits 2

Situational Objective

Statement of the Competency

To prevent psychological health problems.

Elements of the Competency

- Learn about stress management techniques.
- Learn about the symptoms and effects of stress that firefighters may experience after an emergency situation.
- Learn about the symptoms and effects of stress associated with dealing with victims.
- Learn about emotional recovery techniques.
- Recognize the importance for firefighters of taking measures to prevent psychological health problems.

Learning Context

Information Phase

- Learning about the factors that influence emotional reactions.
- Learning about the symptoms of stress that firefighters may experience before, during and after an emergency situation.
- Learning about the methods of stress management applicable before, during and after an emergency situation.
- Learning about the psychological and physiological reactions observed in victims.
- Learning about the different types of psychological support.
- Making connections between the prevention of psychological health problems and the prevention of physical health problems.

Participation Phase

- Participating in role-plays and hypothetical situations.
- Experimenting with verbalization techniques in small groups.
- Discussing the importance of talking about incidents.
- Recognizing their emotional states.
- Experimenting with relaxation techniques.

Synthesis Phase

- Producing a report highlighting the attitudes to be promoted and the emotional recovery techniques to be applied.

Instructional Guidelines

- Ensure that specialized documentation is available.
- Use hypothetical situations and role-plays representative of the workplace.
- Encourage students to participate to the best of their abilities.
- Help the students to express opinions on their personal attitudes and the attitudes to be promoted.
- Provide students with the means to experiment with relaxation techniques.
- Provide students with the means to experiment with emotional recovery techniques.

Participation Criteria

Information Phase

- Carefully examine the documentation.
- Gather information on most of the topics to be covered.

Participation Phase

- Examine their reactions to experiences in their life and work.
- Participate in discussions, showing interest in the topics covered.
- Express their opinions on the measures they intend to take to prevent physical health problems.

Synthesis Phase

- Participate in discussions, showing interest in the topics covered.
- Produce a report.

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each phase of the learning context, along with their attendant guidelines.

Information Phase

- | | |
|--|--|
| • Be receptive to information on stress. | Sources of stress
Physical signs and psychological symptoms of stress
Types of stress: constructive stress and disruptive stress |
| • Be receptive to information on sources of stress related to the occupation of firefighter. | Types of incidents: fires, car accidents, various rescue operations
Normal situations versus traumatic situations |
| • Distinguish among the roles of the various emergency personnel. | Persons involved in triaging victims at the scene of an emergency
Persons likely to intervene directly in the first hours of an emergency situation involving public health |
| • Be receptive to information on victims. | Characteristics of victims in an emergency situation and the concept of empathy |

Participation Phase

- Recognize the sources of stress specific to each step of the emergency response process.
 - Be aware of the reactions that they or a victim may experience.
- Physical and psychological reactions

Synthesis Phase

- Recognize the importance of becoming more resilient to stress.
 - Prepare a summary report.
- Summary of the strengths that will help them prevent psychological health problems as well as the weaknesses they will have to overcome
Summary of their current and future needs

Competency 21 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency

To perform vertical rescue operations.

Achievement Context

- Working alone or as a member of a team
- Based on an operating plan and instructions
- In compliance with recognized standards
- Using specialized rescue tools and equipment
- Using communications equipment

Elements of the Competency**Performance Criteria**

1. Assess the rescue situation.

- Visual identification of useful elements or clues
- Consideration of the characteristics of the rescue site
- Consideration of the actual hazards and risks
- Accurate analysis of the situation

2. Plan their work.

- Accurate interpretation of the operating plan
- Appropriate selection and correct preparation of tools and equipment

3. Go to the victim(s).

- Consideration of potential hazards
- Selection of manoeuvres dependent on the victim's position
- Performance of manoeuvres in compliance with established procedures

4. Provide emergency care.

- Clinical approach to the victim
- Information and reassurance provided to the victim
- Appropriate information transmitted to the emergency team
- Determination of emergency care to be given
- Application of techniques for stabilizing victims

5. Retrieve the victim(s).

- Correct manoeuvres for moving around
- Evacuation of victim(s) to a safe place
- Transfer of victim to competent authorities

6. Prepare the equipment for the next emergency.

- Proper inspection techniques
- Correct preparation of equipment for the next emergency
- Compliance with storage plans
- Appropriate reporting

7. Conduct a retrospective analysis of the operation.

- Consideration of the psychological impacts of the rescue
- Highlighting of aspects needing improvement
- Suggestion of concrete measures to remedy any shortcomings, as needed

For the competency as a whole:

- Accurate, ongoing analysis of risks to victim(s)
- Proper use of tools and equipment
- Careful handling of tools and equipment
- Observance of occupational health and safety rules

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Assess the rescue situation.

- Recognize the role of a vertical rescue team. Nature of the task
Responsibility
Limitations of the operations
- Recognize their role in a vertical rescue team.
- Categorize the types of vertical rescues.
- Distinguish among the elements and information useful in a vertical rescue situation. Nature of the incident
Number of victims
- Assess a site in order to carry out a vertical rescue operation. Geophysical features
Hazards and risks

2. Plan their work.

- Use specialized tools and equipment. Types of tools and equipment useful in vertical rescues
Features and usefulness

3. Go to the victim(s).

- Distinguish among techniques for moving around. Climbing, climbing using a fixed line, and rappelling

4. Provide emergency care.

- Apply techniques for stabilizing victims. Stretcher

5. Retrieve the victim(s).

- Distinguish among evacuation techniques. Rocking, hoist, Tyrolean, stretcher

6. Prepare the equipment for the next emergency.

- Interpret equipment maintenance and inspection standards. Manufacturers' standards, the Bureau de normalisation du Québec (BNQ), the Canadian Standards Association (CSA), the Occupational Safety and Health Administration (OSHA) and the National Fire Prevention Association (NFPA)
Use-by dates

7. Conduct a retrospective analysis of the operation.

- Recognize the importance of a post-mortem. Steps involved in a post-mortem

Competency 22 Duration 45 hours Credits 3

Behavioural Competency

Statement of the Competency

To perform water rescue operations.

Achievement Context

- Working alone or as a member of a team
- Based on an operating plan and instructions
- Using a watercraft
- Using rescue tools and equipment
- Using thermal clothing and flotation devices
- Using communications equipment

Elements of the Competency**Performance Criteria**

1. Go to the rescue site.

- Accurate determination of route to the scene
- Safe driving techniques
- Visual identification of water sources
- Appropriate positioning of fire vehicle

2. Assess the rescue situation.

- Visual identification of useful elements and information
- Consideration of the characteristics of the rescue site
- Consideration of the actual hazards and risks
- Accurate analysis of the situation

3. Plan their work.

- Accurate interpretation of the operating plan
- Appropriate selection and correct preparation of tools and equipment

4. Go to the victim(s).

- Consideration of potential hazards
- Location of the victim(s)
- Use of radio communications equipment and codes
- Performance of navigation manoeuvres in compliance with established procedures

5. Provide emergency care.

- Clinical approach to the victim
- Information and reassurance provided to the victim
- Appropriate information transmitted to the emergency team
- Determination of emergency care to be given
- Application of techniques for stabilizing victims

- | | |
|---|---|
| 6. Retrieve the victim(s). | <ul style="list-style-type: none"> • Correct manoeuvres for moving around • Evacuation of victim(s) to a safe place • Transfer of victim to competent authorities |
| 7. Prepare the equipment for the next emergency. | <ul style="list-style-type: none"> • Proper inspection techniques • Correct preparation of equipment for the next emergency • Compliance with storage plans • Appropriate reporting |
| 8. Conduct a retrospective analysis of the operation. | <ul style="list-style-type: none"> • Consideration of the psychological impacts of the operation • Highlighting of aspects needing improvement • Suggestion of concrete measures to remedy any shortcomings, as needed |

For the competency as a whole:

- Accurate, ongoing analysis of risks to victims
- Proper use of tools and equipment
- Careful handling of tools and equipment
- Observance of occupational health and safety rules

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

- | | |
|--|--|
| 1. Go to the rescue site. | |
| <ul style="list-style-type: none"> • Operate a vehicle with a trailer. | Techniques for operating a vehicle with a trailer
Techniques for launching a watercraft |
| 2. Assess the rescue situation. | |
| <ul style="list-style-type: none"> • Recognize the role of a water rescue team. | Nature of the task
Limitations of the operations |
| <ul style="list-style-type: none"> • Recognize their role in the water rescue team. | |
| <ul style="list-style-type: none"> • Categorize the types of water rescues. | Winter and summer rescue operations |
| <ul style="list-style-type: none"> • Distinguish among the elements and information useful in a water rescue situation. | Nature of the incident
Number of victims |
| <ul style="list-style-type: none"> • Assess a body of water. | Geophysical features
Hazards and risks |

3. Plan their work.

- Use specialized tools and equipment.

Types of tools and equipment useful for rescue operations on water

Types of tools and equipment useful for rescue operations on ice

Thermal clothing

Flotation devices and clothing

Features and usefulness

- Distinguish among the types of watercrafts used.

Hull and propulsion

4. Go to the victim(s).

- Manoeuvre a watercraft.

Nautical vocabulary

Navigation rules

Navigation aids: nautical chart, buoys

- Distinguish among the techniques for searching for victims.

From the shore or a watercraft

Reference points on the shore

Search involving more than one watercraft

Night search

Locating victims: importance of maintaining visual contact

- Use radio communications equipment on VHF waves.

Nautical communications protocol

- Interpret distress signals.

SOS, flare, hand signals

5. Provide emergency care.

- Apply the hypothermia protocol.
- Apply techniques for stabilizing victims.

Medical protocol for first responders (1RÉSP)

Stretcher

6. Retrieve the victim(s).

- Pull a victim from the water.

Approach of victim

Retrieval equipment

Retrieval techniques

- Move around on the ice.

Ropes, snap hook, *Rescue Alive*, *Fortuna*

- Retrieve a victim from the ice.

Competency 23 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency

To perform rescue operations involving a damaged vehicle.

Achievement Context

- Working alone or as a member of a team
- Based on an operating plan and instructions
- Using a fire vehicle
- Using the standard inventory
- Using extrication tools and equipment
- Using communications equipment

Elements of the Competency**Performance Criteria**

- | | |
|---|--|
| 1. Consider the positioning of the vehicle. | <ul style="list-style-type: none">• Appropriate positioning of fire vehicle |
| 2. Assess the rescue situation. | <ul style="list-style-type: none">• Visual identification of useful elements or information• Consideration of the characteristics of the rescue site• Consideration of the actual hazards and risks• Accurate analysis of the situation |
| 3. Plan their work. | <ul style="list-style-type: none">• Accurate interpretation of the operating plan• Appropriate selection and correct preparation of tools and equipment |
| 4. Go to the victim(s). | <ul style="list-style-type: none">• Consideration of potential hazards• Location of the victim(s)• Stabilization of the vehicle |
| 5. Provide emergency care. | <ul style="list-style-type: none">• Clinical approach to the victim• Information and reassurance provided to the victim• Appropriate information transmitted to the emergency team• Determination of emergency care to be given• Application of techniques for stabilizing victims |
| 6. Extricate the victim(s). | <ul style="list-style-type: none">• Correct extrication operations• Appropriate use of specialized extrication equipment• Evacuation of victim(s) to a safe place• Transfer of victim to competent authorities |

- | | |
|---|---|
| 7. Prepare the equipment for the next emergency. | <ul style="list-style-type: none"> • Proper inspection techniques • Correct preparation of equipment for the next emergency • Compliance with storage plans • Appropriate reporting |
| 8. Conduct a retrospective analysis of the operation. | <ul style="list-style-type: none"> • Consideration of the psychological impacts of the operation • Highlighting of aspects needing improvement • Suggestion of concrete measures to remedy any shortcomings, as needed |

For the competency as a whole:

- Accurate, ongoing analysis of risks to victims
- Proper use of tools and equipment
- Careful handling of tools and equipment
- Observance of occupational health and safety rules

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

- | | |
|--|--|
| 1. Consider the positioning of the vehicle. | |
| <ul style="list-style-type: none"> • Recognize the importance of using the vehicle for protection. | Positioning of vehicle on a busy road, along a curve or on a hill |
| 2. Assess the rescue situation. | |
| <ul style="list-style-type: none"> • Describe the role of a rescue team working with a damaged vehicle. | Nature of the task
Limitations of the operations |
| <ul style="list-style-type: none"> • Recognize their role in a rescue team working with a damaged vehicle. | |
| <ul style="list-style-type: none"> • Distinguish among the elements and information useful in a rescue situation involving a damaged vehicle. | Characteristics of the vehicle(s) involved
Circumstances of the accident
Number of victims |
| <ul style="list-style-type: none"> • Assess a site in order to rescue occupants from a damaged vehicle. | Geophysical features
Hazards and risks |
| 3. Plan their work. | |
| <ul style="list-style-type: none"> • Categorize extrication tools and equipment. | Common tools
Pneumatic and hydraulic equipment
Features and usefulness |

- Assemble and disassemble equipment. Assembly and disassembly sequences
 - Interpret an operating plan. Inner circle, outer circle, equipment sector, safety zone
4. Go to the victim(s).
- Use extrication equipment. Removal of doors, roof, seats and floor of vehicle
 - Distinguish among the methods of stabilizing vehicle(s). Stopping versus stabilization
 - Distinguish among the methods of approaching a damaged vehicle. Victim's field of vision
5. Provide emergency care.
- Use techniques for stabilizing victims. Kendrick Extrication Device (KED)
 - Recognize the level of stress associated with a vehicle rescue.
6. Conduct a retrospective analysis of the operation.
- Recognize the level of stress associated with a vehicle rescue.

Competency 24 Duration 45 hours Credits 3

Behavioural Competency

Statement of the Competency

To perform rescue operations in a confined space.

Achievement Context

- Working alone or as a member of a team
- Based on an operating plan and instructions
- Using the standard inventory
- Using rescue tools and equipment
- Using an SCBA
- Using communications equipment
- In situations that do not require shoring equipment

Elements of the Competency

Performance Criteria

1. Assess the rescue situation.

- Visual identification of useful elements or information
- Consideration of the characteristics of the rescue site
- Consideration of the actual hazards and risks
- Accurate analysis of the situation

2. Plan their work.

- Accurate interpretation of the operating plan
- Appropriate selection and correct preparation of tools and equipment

3. Go to the victim(s).

- Consideration of potential hazards
- Location of the victim(s)
- Selection of manoeuvres dependent on the victim's position
- Secure the area to reach the victim
- Performance of manoeuvres in compliance with established procedures

4. Provide emergency care.

- Clinical approach to the victim
- Information and reassurance provided to the victim
- Appropriate information transmitted to the emergency team
- Determination of emergency care to be given

5. Retrieve the victim(s).

- Rescue manoeuvres comply with evacuation techniques
- Evacuation of victim(s) to a safe place
- Transfer of victim to competent authorities

- 6. Prepare the equipment for the next emergency.
 - Proper inspection techniques
 - Correct preparation of equipment for the next emergency
 - Compliance with storage plan
 - Appropriate reporting
- 7. Conduct a retrospective analysis of the operation.
 - Consideration of the psychological impacts of the operation
 - Highlighting of aspects needing improvement
 - Suggestion of concrete measures to remedy any shortcomings, as needed

For the competency as a whole:

- Accurate, ongoing analysis of risks for victims
- Proper use of tools and equipment
- Careful handling of tools and equipment
- Observance of occupational health and safety rules

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each element of the competency, along with their attendant guidelines.

1. Assess the rescue situation.
 - Recognize the role of a confined-space rescue team.
 - Nature of the task
 - Limitations of the operations
 - Recognize their role in a confined-space rescue team.
 - Categorize the types of confined-space rescues.
 - Distinguish among the elements and information that are useful in a confined-space rescue.
 - Nature of the incident
 - Number of victims
 - Assess a site in order to carry out a confined-space rescue.
 - Features and configuration of the structure involved
 - Types of collapse
 - Dangers and risks
 - Means of accessing victim(s)

2. Plan their work.

- Distinguish among the methods for accessing victim(s).

- Select the rescue tools and equipment.

Common tools
Features and usefulness

- Assemble and disassemble rescue tools and equipment.

Tripod and breathing apparatus
Hoist system
Assembly and disassembly sequences

3. Go to the victim(s).

- Install a breathing air cascade system.
- Install a communications system.
- Install a supplementary heating system.
- Distinguish among various methods of moving around.

4. Provide emergency care.

- Use techniques for evacuating victims.

Rescue stretcher
SKED stretcher

- Retrieve the victim(s).

Competency 25 Duration 60 hours Credits 4

Situational Objective

Statement of the Competency

To enter the labour market.

Elements of the Competency

- Become familiar with the realities of the occupation.
- Integrate the knowledge, skills, attitudes and habits they acquired during their training.
- Learn about the different changes in perception that result from a practicum in the workplace: work context, occupational tasks and activities, occupational practices.

Learning Context

Information Phase

- Learning about the terms and conditions of the practicum.
- Listing fire departments likely to hire students for a practicum in the workplace.
- Learning about the physical organization of the fire department.

Participation Phase

- Observing the work context: types of fire departments, internal structure, working conditions, interpersonal relationships, health and safety.
- Working with the firefighting team, adapting to their work methods and schedule, etc.
- Observing, performing or participating in a variety of occupational tasks.
- Keeping a log of their observations on the work context and their daily tasks.

Synthesis Phase

- Producing a practicum report.
- Establishing connections between their experience in the workplace and the knowledge acquired in school.
- Explaining the consequences of their practicum experience on their choice of future employment: aptitudes, preferences and interests.

Instructional Guidelines

- Provide students with the means of choosing a practicum position wisely.
- Maintain close cooperation between the school and the workplace.
- Work with people in the workplace to ensure that students perform work-related tasks and develop the ability to work independently.
- Make sure that there is a responsible person in the fire department to supervise the student.
- Ensure the proper support and supervision of each student during the practicum.
- Intervene in case of difficulties or problems.
- Promote discussion among students.

Participation Criteria

Information Phase

- Understand the practical organization of the practicum and their responsibilities.

Participation Phase

- Follow the instructions of the fire department with respect to occupational activities, work schedules and the rules of professional ethics.
- Apply the health and safety rules followed in the fire department.
- Show an interest in performing a variety of tasks.
- Share their experience of the workplace with their classmates (firefighters).
- Record in their log their observations of the tasks performed during the practicum.

Synthesis Phase

- Produce a practicum report.

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each phase of the learning context, along with their attendant guidelines.

Information Phase

- | | |
|---|--|
| • Situate their learning in terms of the requirements of the practicum. | Personal profile
Concrete means of making adjustments on a personal and professional level
Goal and duration of practicum
Evaluation method |
| • Identify the elements to record during the practicum. | Observation report and log |
| • Learn about the requirements of the practicum. | Expectations of employers and personnel
Field of application and professional limitations
Practices and regulations of the fire departments |

Participation Phase

- | | |
|---|---|
| • Observe the work context. | Organizational structure, equipment, work techniques, working conditions, work atmosphere, occupational health and safety, etc.
Roles and responsibilities of each member of the work team |
| • Recognize the attitudes and behaviours that promote teamwork. | |
| • Carry out the tasks of a firefighter. | Tasks and level of supervision established with the person in charge |
| • Prevent physical and psychological health problems. | |

- Participate in interpersonal exchanges.
- Keep a log of the tasks carried out during the practicum.

List of tasks and frequency of execution
Comments
Support and supervision received
Comparison with the practicum plan

Synthesis Phase

- Identify the aspects of the occupation that correspond or do not correspond to the training received.
- Identify the attitudes and behaviours required in the work context.
- Become aware of the consequences of their practicum.

Difference between the work context and the training context
Applicability of the principles taught to a real work context

Professional ethics, stress management, professional image, personal discipline
New perceptions: work environment, occupational practices, differences between their perceptions and reality

Consequences of the practicum on the choice of future employment: aptitudes and ability to integrate, impact of environmental factors
Consequences of the practicum on their ongoing training process

