Vocational Training Program

5820

Landscaping Operations

Training Sector

2

Agriculture and Fisheries

Québec

Vocational Training Program

5820

Landscaping Operations

Training Sector

2

Agriculture and Fisheries

Formation professionnelle et technique
et formation continue

Direction générale de la formation
professionnelle et technique

Development Team

Coordination

Lise Gélinas
Coordinator, Training engineering
Direction générale de la formation professionnelle et technique
Ministère de l'Éducation, du Loisir et du Sport

Marielle Gingras
Coordinator, Agriculture and Fisheries Sector – Agriculture component
Direction générale de la formation professionnelle et technique
Ministère de l'Éducation, du Loisir et du Sport

Design and Development

Guillaume Vincent
Teacher
Commission scolaire de Saint-Hyacinthe

Jocelyne Lavoie
Program Development Consultant

Claude Paré
Program Development Consultant

English Version

Direction de la production en langue anglaise
Secteur des services à la communauté anglophone
Ministère de l'Éducation, du Loisir et du Sport

Technical Editing

Deborah Dohmen
New Frontiers School Board

ISBN 978-2-550-55738-8 (Print version)
ISBN 978-2-550-55739-5 (PDF)

Legal Deposit – Bibliothèque et Archives nationales du Québec, 2009

Acknowledgments

The Ministère de l'Éducation, du Loisir et du Sport would like to thank the many people working in the field and in the education community who participated in the development of this vocational training program, in particular the following individuals.

Representatives Employed in Education

Marc Bolduc
Centre Fierbourg

André Bonneville
École des métiers de l'horticulture de Montréal

Normand Chouinard
Commission scolaire de la Riveraine

Bertrand Gagnon
Centre de formation de Coaticook (CRIFA)

Cécile Hammond
Ministère de l'Éducation, du Loisir et du Sport

Yves Jetté
Centre des Moissons

François Lambert
Commission scolaire des Hauts-Cantons

Michel Lamond
Commission scolaire de Laval

Ginette Lefebvre
Centre Le Florès

Jean Loiselle
École d'agriculture de Nicolet

Sylvie Méthé
Centre de formation horticole de Laval

Marcelle Parr
Commission scolaire de Saint-Hyacinthe

Paul Picard
Commission scolaire au Cœur-des-Vallées

Danielle Roy
Commission scolaire de Saint-Hyacinthe

Josée Roy
Ministère de l'Éducation, du Loisir et du Sport

Raymond Tremblay
Commission scolaire du Lac Saint-Jean

Representatives Employed in the Field

Alain Baillargeon
Objectif paysage inc.

Réjean Dubé
Les Aménagements Dubé

Marie-Andrée Fortier
Art et Jardins

Ghislain Fournier
Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec

Normand Hébert
Le Vert Paysage

Jean-Louis Levert
Le Vert Paysage

Guy Lusignan
Paysage Coup d'œil inc.

Michel Martel
Michel Martel - Landscaper

Martine Matteau
Institut québécois des ressources humaines en horticulture

Bernard Morin
Arbrevert

Christian Proulx
Self-employed

René Simoneau
Les Gestions René Simoneau ltée

Christiane Vaillancourt
Association des paysagistes professionnels du Québec

Yoland Viau
Unisol

Table of Contents

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 Act[1], "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 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. Behavioural Competency

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

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

- 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.

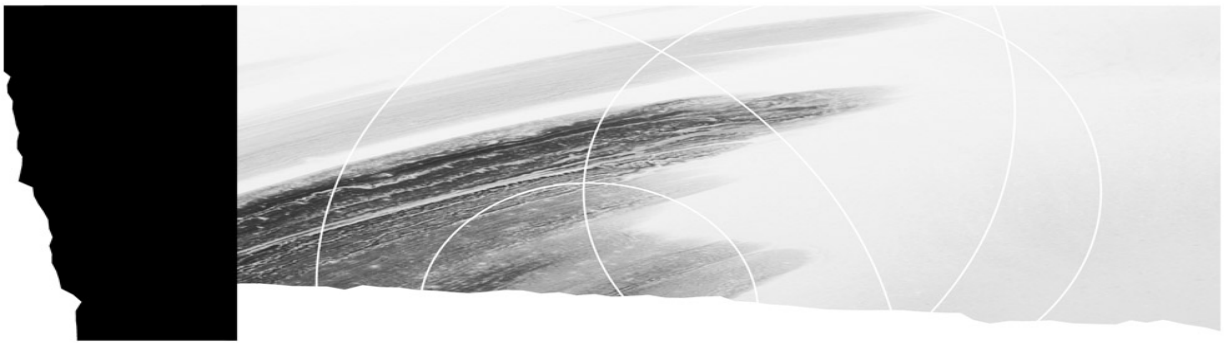
Aspects of Program Implementation

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.



5820	**Landscaping Operations**

Year of approval: 2008

Certification:	Diploma of Vocational Studies
Number of credits:	69 credits
Number of competencies:	19 competencies
Total duration:	1 035 hours

To be eligible for admission to the *Landscaping Operations* 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 III 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 course ENG-3070-3, and the mathematics course MTH-3016-2, or recognition of equivalent learning.

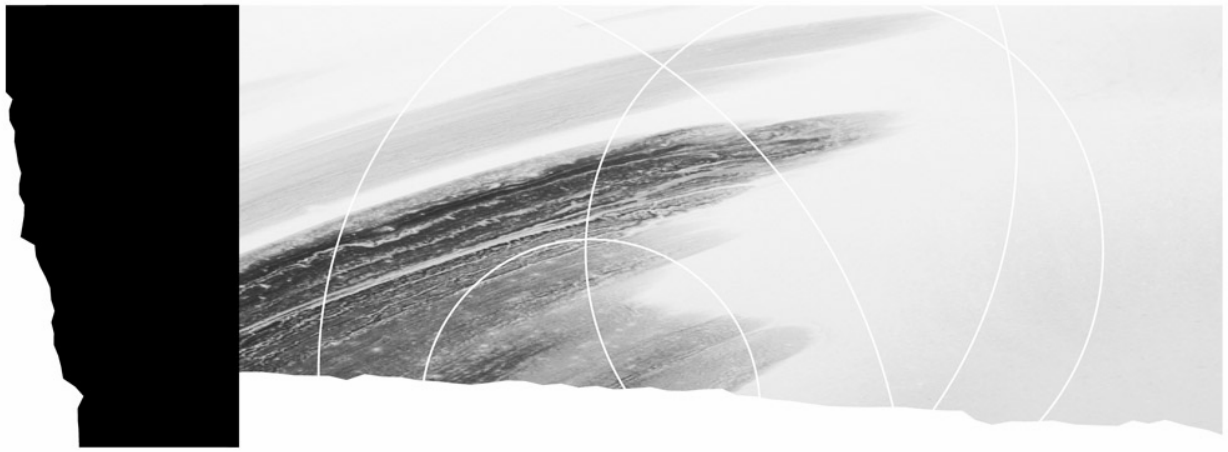
N.B.: For programs of study in this category, persons may continue their general education courses concurrently with their vocational training provided that they have earned at least the Secondary III credits in language of instruction, second language and mathematics in the programs established by the Minister or they are at least 18 years of age and have successfully completed the General Development Test (GDT).

The duration of the program is 1 035 hours, which includes 780 hours spent on the specific competencies required to practise the trade or occupation and 255 hours on general, work-related competencies. The program of study is divided into 19 competencies which vary in length from 15 to 120 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

Because of the job requirements, students should obtain a driver's licence before the end of the program.

Competency	Code	Number	Hours	Credits
Trade and Training Process	706202	1	30	2
Health and Safety on Construction Sites	754992	2	30	2
Tools, Equipment and Machinery	706214	3	60	4
Measurements and Estimates	706222	4	30	2
Plans, Specifications and Technical Documentation	706233	5	45	3
Communication in the Workplace	706241	6	15	1
Differentiating Plants	706252	7	30	2
Landscaping a Site	706266	8	90	6
Outdoor Pesticide Use	704592	9	30	2
Grounds Maintenance	706277	10	105	7
Irrigation and Lighting Systems	706284	11	60	4
Concrete Structures	706294	12	60	4
Mortarless Stone and Concrete	706308	13	120	8
Mortared Stonework	706312	14	30	2
Wooden Structures	706327	15	105	7
Job Search	706331	16	15	1
Water and Rock Gardens	706344	17	60	4
Landscape Design Sketches	706353	18	45	3
Entering the Workforce	706365	19	75	5



Part I

Program Goals

Educational Aims

Statements of the Competencies

Grid of Competencies

Harmonization

Program Goals

The *Landscaping Operations* program prepares students to practise the trade or occupation of landscape worker.

Landscape workers are employed by landscapers, municipalities, government departments and nurseries. After working for a few years, some may even start up their own business.

Landscape workers install gardens and maintain grounds. They also build wooden structures such as benches, arbours and pergolas, build stone walls and rock gardens, and install concrete features such as walkways and patios.

Landscape workers work with inert and living materials such as flowers, trees and shrubs. They are concerned with sustainable development and use pesticides in conformity with legislation as part of an integrated pest management program.

Landscape workers generally work in teams, referring to plans and specifications and using tools and machinery. They operate excavators and compacting equipment and handle measuring instruments and hand tools. Their work may require them to communicate with clients, suppliers and other workers.

The program goals of the *Landscaping Operations* 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 *Landscaping Operations* 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:

- Develop professional ethics and respect for others.
- Develop autonomy, initiative and a sense of responsibility.
- Develop self-discipline.
- Develop concern for making connections between the different components of a landscape design.

Statements of the Competencies

List of Competencies

- Determine their suitability for the trade and the training process.
- Ensure health, safety and physical well-being on construction sites.
- Maintain horticultural tools, equipment and machinery and operate machinery.
- Take measurements and make estimates.
- Interpret plans, specifications and technical documentation.
- Communicate in the workplace.
- Differentiate plants.
- Landscape a site.
- Use pesticides outdoors.
- Maintain grounds.
- Install irrigation and lighting systems.
- Build concrete structures.
- Build mortarless structures using stone and concrete products.
- Build mortared stone structures.
- Build wooden structures.
- Use job search techniques.
- Build and maintain a water and a rock garden.
- Produce a sketch for a residential landscape design.
- Enter the workforce.

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 (△) 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

LANDSCAPING OPERATIONS

SPECIFIC COMPETENCIES	Competency number	Type of competency	Duration (in hours)	GENERAL COMPETENCIES: Ensure health, safety and physical well-being on construction sites	Maintain horticultural tools, equipment and machinery and operate machinery	Take measurements and make estimates	Interpret plans, specifications and technical documentation	Communicate in the workplace	Differentiate plants	Use pesticides outdoors	Use job search techniques	WORK PROCESS: Become familiar with work instructions	Plan the work to be done	Prepare the tools, equipment and materials	Do the work!	Check the quality of the work done	Clean and tidy up	Follow up
Competency number				2	3	4	5	6	7	9	16							
Type of competency				s	b	b	b	s	b	b	b							
Duration (in hours)				30	60	30	45	15	30	30	15							
Determine their suitability for the trade and the training process	1	s	30	○	○	○	○	○	○	○	○	△	△	△	△	△	△	△
Landscape a site	8	b	90	●	●	●	●	●	●	○		▲	▲	△	▲	▲	▲	△
Maintain grounds	10	b	105	●	●	●	●	○	●	●		▲	△	△	▲	▲	▲	▲
Install irrigation and lighting systems	11	b	60	●	○	●	●	○	○	○		▲	▲	▲	▲	▲	▲	△
Build concrete structures	12	b	60	●	●	●	●	●				▲	▲	▲	▲	▲	▲	△
Build mortarless structures using stone and concrete products	13	b	120	●	●	●	●	●				▲	▲	▲	▲	▲	▲	△
Build mortared stone structures	14	b	30	●	●	●	●	●				▲	▲	▲	▲	▲	▲	△
Build wooden structures	15	b	105	●	●	●	●	●				▲	▲	▲	▲	▲	▲	△
Build and maintain a water and a rock garden	17	b	60	●	●	●	●	●	●	●		▲	▲	▲	▲	▲	▲	△
Produce a sketch for a residential landscape design	18	b	45	●		●	●	●	●	○		▲	▲	△	▲	▲	△	△
Enter the workforce	19	s	75	○	○	○	○	○	○	○	○	△	△	△	▲	△	△	▲

Harmonization

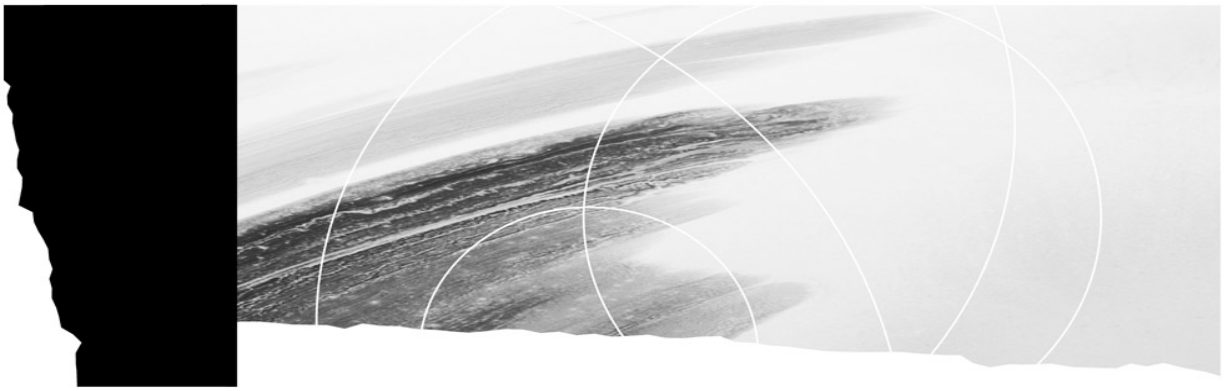
The Ministère de l'Éducation, du Loisir et du Sport harmonizes its vocational and technical programs by establishing similarities and continuity between secondary- and college-level programs within a particular sector or between sectors in order to avoid overlap in program offerings, to recognize prior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

Harmonization of the *Landscaping Operations* program has resulted in identifying competencies that are shared with other programs. Detailed information on the harmonization of this program and its results is presented in the document entitled *Tableaux d'harmonisation, Réalisation d'aménagements paysagers*.



Part II

Program Competencies

Trade and Training Process	Code: 706202

Competency 1 Duration 30 hours Credits 2

Situational Competency

Statement of the Competency

Determine their suitability for the trade and the training process.

Elements of the Competency

- Understand the reality of the trade.
- Understand the training program.
- Assess and confirm their career choice.

Learning Context

Information Phase

- Learning about the characteristics of the job market in landscaping: types of businesses, types of products or services, new trends, job prospects, remuneration and advancement opportunities.
- Learning about the nature and requirements of the job: tasks, working conditions, regulations and standards governing the industry.
- Presenting the information gathered and their perception of the trade during a group discussion: advantages, disadvantages and requirements.

Participation Phase

- Discussing the skills, attitudes, aptitudes and knowledge required to practise the trade.
- Discussing the relationship between the *Landscaping Operations* program and the work of landscape workers.
- Discussing the relationship between the *Landscaping Operations* program and horticulture-related college and university programs.
- Expressing their views on the training process.

Synthesis Phase

- Producing a report in which they:
  - describe their preferences, aptitudes and interests with respect to the trade
  - assess and confirm their career choice by comparing aspects and requirements of the trade with their own preferences, aptitudes and interests

Instructional Guidelines

- Create a climate that fosters the students' personal development and entry into the job market.
- Encourage all students to engage in discussions and to express themselves.
- Motivate the students to take part in the suggested activities.
- Help the students acquire an accurate perception of the trade.
- Provide the students with the means to assess their career choice honestly and objectively.
- Organize a field trip to a company that is representative of the industry.
- Make available all pertinent documentation: publications on the trade, training programs, books, etc.
- Organize meetings with trade specialists.
- Make the students aware of the need to keep developing their knowledge and skills, by keeping up with landscaping trends, work methods and products.

Participation Criteria

Information Phase

- Note information on most of the topics to be covered.
- Adequately express their views on the trade during a group meeting, relating their views to the information gathered.

Participation Phase

- Express their opinion on some of the requirements they will have to meet in order to practise the trade.
- Thoroughly examine the documents available.
- Listen attentively to explanations.
- Adequately express their views on the training program at a group meeting, relating their views to the trade, related trades and the training programs associated with these trades.

Synthesis Phase

- Produce a report in which they:
  - briefly describe their preferences, interests and aptitudes
  - explain their career choice, clearly making the required connections

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 the competency with respect to the work of a qualified landscape worker.	Reason for the competency, course outline
• Be receptive to information about the trade and training program.	Conditions of receptiveness: visual attention, auditory attention, favourable climate, interest, concentration, and physical and psychological well-being

• Show concern for sharing their perception of the trade with others in the group.	Advantages to sharing one's point of view and to listening to that of others
• Apply the main rules governing effective group discussions.	Basic rules: participation, waiting one's turn to speak, staying on topic, listening to others, paying attention to others, being open to other viewpoints
• Distinguish the different stakeholders in landscaping operations.	Government departments, associations, federations, research institutes, horticultural societies, etc.
• Look for information about the nature and requirements of the job.	Information on standards and regulations, tasks, required aptitudes and skills, working conditions, working hours, etc.
• Explore different sources of information.	Sources of information: written, media and electronic references, symposiums and conferences
• Look for information about the characteristics of the job market in landscaping.	Types of businesses Plants, materials, products and services offered New trends Employment prospects Remuneration Advancement opportunities Labour
• Present the information gathered and discuss their perception of the trade during a group meeting.	Advantages, disadvantages, requirements
Participation Phase	
• Discuss the skills, attitudes, aptitudes and knowledge required to practise the trade.	Distinction between skills, attitudes, aptitudes and knowledge Dexterity, physical strength, patience, creativity Memory: knowledge of plants, inert materials, etc.
• Discuss the relationship between the *Landscaping Operations* program and the work of landscape workers.	Program of study and work situation: program objectives, connections between competencies, relevance of the competencies to the work done
• Discuss the *Landscaping Operations* program and other secondary and college horticulture-related programs.	Possibility of pursuing their studies in college, university; other professional development possibilities or DVS programs related to the trade (information on existing programs)
• Express their views on the training process.	

Synthesis Phase

• Discuss their preferences, aptitudes and interests with respect to the trade.	Parallels between the reality of the trade, the training program and their personal situation Arguments justifying their career choice
• Produce a report.	Content of the report Conditions and presentation format

Health and Safety on Construction Sites	Code: 754992

Competency 2 Duration 30 hours Credits 2

Situational Competency

Statement of the Competency

Ensure health, safety and physical well-being on construction sites.

Elements of the Competency

- Adopt a responsible attitude regarding dangers to personal health and safety.
- Be aware of the importance of complying with occupational health and safety standards and regulations.
- Recognize dangerous situations or unsafe behaviour and applicable preventive measures.

Learning Context

Information Phase

- Learning about the risks inherent in construction sites.
- Learning about the health and safety standards and regulations on construction sites.
- Learning about emergency measures.
- Reflecting on the importance of developing occupational health and safety skills.

Participation Phase

- Experiencing situations in which it is necessary to prevent risks and eliminate hazards associated with the environment, facilities, equipment, machinery, tools, materials, energy sources, etc.
- Participating in activities that allow students to recognize risks associated with transporting loads and working in constricted postures.
- Participating in activities that allow students to recognize safety signs and symbols (e.g. hazardous products, roadwork, transportation of hazardous materials).
- Comparing different high-risk behaviours observed on a construction site and identifying the basic principles underlying safe behaviour.

Synthesis Phase

- Producing a report containing:
  - a summary of their newly acquired knowledge and skills
  - an evaluation of their attitude toward occupational health and safety
  - objectives and means of improving their behaviour

Instructional Guidelines

- Provide the required sources of information.
- Invite, as needed, resource persons specialized in certain areas of occupational health and safety to speak to the class.
- Make effective use of audiovisual materials.
- Make extensive use of learning situations that are representative of conditions on construction sites.
- Ensure that students avoid dangerous behaviours during simulation exercises.
- Encourage all students to participate in discussions.
- Guide the students' evaluation process by providing them with appropriate tools (e.g. questionnaire) to help them analyze their experience and set objectives.

Participation Criteria

Information Phase

- Consult available sources of information.
- Describe the advantages of complying with health and safety standards and regulations.

Participation Phase

- Participate responsibly in the suggested activities.
- State the principles underlying safe behaviour.
- List the risks inherent in construction sites and the applicable preventive measures.

Synthesis Phase

- Produce a report containing:
  - a summary of their newly acquired knowledge and skills
  - an evaluation of their attitude toward occupational health and safety
  - objectives and means of protecting their health, safety and physical well-being, as well as that of others, on a construction site

Suggestions for Competency-Related Knowledge, Skills, Attitudes and Perceptions

The following is a list of knowledge, skills, attitudes, perceptions and guidelines related to the learning context.

Information Phase

- Be receptive to information on health and safety on construction sites.

- Recognize the most common dangers to health, safety and physical well-being on construction sites.

- Recognize the sources of information relating to health and safety on construction sites and find information in these sources.

Roles and responsibilities in matters relating to health and safety on construction sites
Regulatory framework governing occupational health and safety

• Identify the advantages of complying with health and safety standards and regulations.	Prevention of illness and accidents Importance of wearing personal protective equipment
Participation Phase	
• Associate the risks inherent in construction sites and the trade with applicable preventive measures.	Risks inherent in the constructive site itself and in the practice of the trade Preventive measures to apply according to the risks involved Workplace Hazardous Materials Information System (WHMIS)

Tools, Equipment and Machinery	Code: 706214

Competency 3 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency	**Achievement Context**
Maintain horticultural tools, equipment and machinery and operate machinery.	• On a site or in a workshop • Based on instructions or broken or malfunctioning machinery and equipment • Using the technical documentation available (e.g. maintenance manuals, manufacturers' guides, list of check points) • Using the necessary machinery, tools, equipment, spare parts and products • Using personal protective equipment

Elements of the Competency	**Performance Criteria**
1. Check the condition of machinery.	• Routine verification before start-up, based on to the type of vehicle or machinery • Identification of the corrective action required • Choice of appropriate lubricants or fuel • Proper execution of minor corrective action required • Safe start-up
2. Transport tools, equipment and materials.	• Proper execution of basic manoeuvres • Trailer properly and safely hitched • Tools, equipment and materials properly secured
3. Excavate flower beds and foundations.	• Routine verification of public utilities before excavating • Observance of the suggested dimensions and grades
4. Level a site.	• Proper levelling, within the limits of the machinery used • Observance of the suggested topography

5. Perform basic maintenance operations on mechanical tools and equipment.	• Thorough verification of the condition of tools and equipment • Identification of the corrective action required • Appropriate choice of maintenance tools • Choice of appropriate lubricants and fuel • Appropriate doses • Correct application of sharpening techniques • Appropriate replacement or repair of defective parts • Tools or equipment in good working order • Proper disposal of products used, according to current standards • Clean tools and equipment
6. Fill out maintenance records or logs.	• Relevant information • Clear information
	For the competency as a whole: • Compliance with occupational health and safety rules • Compliance with legislation governing vehicle operation • Observance of the sequence of maintenance operations • Observance of work techniques • Observance of the limits to which tools may be used • Respect for the environment • Accurate manoeuvres

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. Check the condition of machinery.

• Understand the importance of basic preventive maintenance on machinery.	Purpose of basic preventive maintenance: prolong the life of machinery, improve performance, etc. Distinction between minor adjustments and major repairs
• Follow the procedure for performing routine checks.	Quality criteria of machinery in good working order Routine check points Verification procedure Assessment of the machinery's condition using sight and sound, smell and touch: smoke, noise, odours, vibrations

• Add lubricants and fuel.	Types of lubricants (motor, hydraulic) Fuel (gasoline, fuel mix, diesel)
• Make minor adjustments.	Addition of lubricants or fuel Greasing Tire pressure

2. Transport tools, equipment and materials.

• Hitch a trailer to a truck.	Sections of the *Highway Safety Code* Safety measures Trailer hitch method
• Secure tools, equipment and materials.	Sections of the *Highway Safety Code* Safety measures Securement method
• Drive a vehicle and trailer.	*Highway Safety Code* Basic manoeuvres Attitudes and behaviours at the wheel

3. Excavate flower beds and foundations.

• Operate an excavator.	Communication with public utility companies Basic manoeuvres Safe operation

4. Level a site.

• Operate a loading shovel on various types of machinery.	Basic manoeuvres Safe operation
• Use land-levelling equipment.	Attaching various equipment to machinery Equipment adjustments

5. Perform basic maintenance operations on mechanical tools and equipment.

• Understand the importance of maintenance on mechanical tools and equipment.	Purpose of maintenance (e.g. to prolong the life of tools and equipment, improve performance) Distinction between minor adjustments and major repairs
• Check the condition of tools and equipment.	Consultation of reference documents Quality criteria Routine check points Verification procedure Assessment of the condition of tools and equipment using sight, sound, smell and touch: smoke, noise, odours, vibrations Minor adjustments and replacement of parts Protection of the environment
• Sharpen tools and equipment.	Sharpening methods Safety aspects

• Clean and put away tools and equipment.	Cleaning and storage methods
• Show initiative and concern for working independently.	Educational aim Importance of being proactive
6. Fill out maintenance records or logs.	
• Understand the importance of keeping a maintenance log.	Purpose of a maintenance log Quality criteria
For the competency as a whole:	
• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies
• Understand the importance of health and safety when maintaining or using tools, equipment and machinery.	Main safety hazards or risks Preventive measures Review of Competency 2

Measurements and Estimates	Code: 706222

Competency 4 Duration 30 hours Credits 2

Behavioural Competency

Statement of the Competency	**Achievement Context**
Take measurements and make estimates.	• On a site • While performing landscaping operations • Using the metric and imperial systems • Using the necessary measuring instruments and a calculator • Using standards, manufacturers' guides and technical documentation

Elements of the Competency	**Performance Criteria**
1. Measure lengths, heights and widths on a site.	• Proper use of a measuring tape and a manual odometer • Accurate measurements
2. Measure angles.	• Proper use of a protractor • Accurate measurements
3. Establish grades and elevations.	• Proper use of traditional, optical and laser levels • Accurate calculation of grades • Accurate calculation of elevations
4. Estimate quantities of materials.	• Accurate calculation of quantities of units • Consideration of waste, expansion and compaction factors
	For the competency as a whole: • Mastery of the necessary mathematical operations

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. Measure lengths, heights and widths on a site.

• Use measuring instruments.	Measuring tape Manual odometer
• Convert measurements from one system to another.	Metric system Imperial system

2. Measure angles.	
• Use measuring instruments to measure angles.	Protractor Square
3. Establish grades and elevations.	
• Use measuring instruments to establish grades and elevations.	Traditional, optical and laser levels
• Calculate grades.	Calculation method
4. Estimate quantities of materials.	
• Make connections between landscaping standards and materials estimates.	Standards of the Association des paysagistes professionnels du Québec (APPQ) Manufacturers' standards Standards of the Bureau de normalisation du Québec (BNQ) Landscaping standards and quantities of materials Materials and units of measure (e.g. concrete/ volume, stone/tonne) Standard dimensions for materials
• Calculate the perimeter, area and volume of the most common geometric figures in landscaping.	Geometric figures Formulas Waste factor
• Apply the rule of three.	Application in situations commonly encountered in landscaping
For the competency as a whole:	
• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies

Plans, Specifications and Technical Documentation	Code: 706233

Competency 5 Duration 45 hours Credits 3

Behavioural Competency

Statement of the Competency	**Achievement Context**
Interpret plans, specifications and technical documentation.	• On a site or indoors • Based on landscape plans such as site layout and planting plans • Based on detailed construction drawings of a hardscape feature • Based on specifications and technical documentation (print or electronic formats) • Using standards and regulations • Using measuring instruments, a calculator and a computer with an Internet connection

Elements of the Competency	**Performance Criteria**
1. Interpret the codes and symbols in a plan.	• Accurate interpretation of the title block, scale, lines, symbols, etc. • Appropriate use of scale
2. Interpret the different views of a plan.	• Accurate interpretation of different views (e.g. plan view, elevation, cross-section, perspective)
3. Interpret technical information regarding the work in the specifications.	• Accurate determination of the type of work to be done • Complete, relevant information regarding the work to be done • Accurate interpretation of the standards and regulations to observe during the work
4. Look for and interpret technical data regarding the work in the documentation.	• Use of appropriate research methods • Accurate interpretation of data gathered • Proper use of conventional or electronic sources of information • Proper use of computer equipment
	For the competency as a whole: • Compliance with current standards • Systematic work method

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.

Plans, Specifications and Technical Documentation	Code: 706233

1. Interpret the codes and symbols in a plan.

• Distinguish different types of plans.	Location plan Site layout plan Planting plan Landscape infrastructure plan Detail drawings
• Identify the elements of a landscape plan.	Symbols, legend, title block
• Identify on a plan the different types of work to be done.	Walkways and walls Pond and rock garden Planting Lighting and irrigation Wooden structures

2. Interpret the different views of a plan.

• Distinguish the views of a plan.	Elevation, cross-section, perspective, etc.
• Transfer elements from a plan to an actual situation.	Concept of scale Triangulation method

3. Interpret technical information regarding the work in the specifications.

• Associate standards and regulations with the different types of structures to build.	APPQ, BNQ and Canadian Standards Association (CSA) standards, and municipal bylaws regarding the main structures
• Locate in specifications information regarding the work to be done.	Components of specifications Purpose of specifications Terminology associated with specifications Location in the specifications of the section pertaining to landscaping Type of information (e.g. turnaround time, penalties, quality of the materials, work methods)

4. Research and interpret technical data regarding the work in the documentation.

• Use a traditional research method.	Elements of an efficient search (e.g. credibility of and access to sources, gathering relevant information) Sources of information (e.g. associations, media, libraries, gardens)
• Search for information using a computer.	Basic use of a word-processing program Consultation of industry Web sites E-mail
• Show concern for keeping up with new developments.	Educational aim Importance of having accurate, current information Ways of keeping up with new developments (e.g. continuing education and training, magazines, trade shows)

For the competency as a whole:

• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies

Communication in the Workplace	Code: 706241

Competency 6 Duration 15 hours Credit 1

Situational Competency

Statement of the Competency

Communicate in the workplace.

Elements of the Competency

- Understand the principles of communication.
- Apply communication techniques in the workplace.
- Become aware of their strengths and weaknesses regarding their ability to communicate in the workplace.

Learning Context

Information Phase

- Learning about the communication process.
- Determining the factors that hinder and promote effective communication.
- Learning about the characteristics of verbal and nonverbal communication.
- Learning about the main communication problems encountered in the workplace.
- Examining their communication skills based on their personal experience.

Participation Phase

- Participating in simulation exercises on the attitudes and behaviours to adopt with different stakeholders in landscaping: customers, coworkers, entrepreneurs, etc.
- Participating in simulation exercises on the attitudes and behaviours that promote cooperation in a team.

Synthesis Phase

- Analyzing, on their own, situations that highlight their strengths and weaknesses regarding their ability to communicate and work in a team.
- Producing a report describing their strengths and weaknesses regarding their ability to communicate and work in a team.

Instructional Guidelines

- Provide the students with the necessary sources of information.
- Create a climate conducive to personal growth.
- Promote discussion by applying facilitation techniques.
- Stimulate personal expression.
- Provide the necessary support to help students carry out the activities.
- Encourage the use of effective communication techniques inside the classroom.
- Develop simulation exercises that are representative of the workplace.
- Encourage and support students who have difficulty communicating.

Participation Criteria

Information Phase

- Note information on the various topics covered.
- Indicate at least one strength and one weakness regarding their personal communication style.

Participation Phase

- Participate in different activities.
- Seek to develop the appropriate attitudes and behaviours with different stakeholders in landscaping.
- Seek to develop the attitudes and behaviours that promote cooperation in a team.

Synthesis Phase

- Produce a report containing:
  - at least three strengths and three weaknesses regarding their ability to communicate and work in a team
  - at least two ways of improving their ability to communicate and work in a 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 phase of the learning context, along with their attendant guidelines.

Information Phase	
• Learn about the communication process.	Elements of the communication process (e.g. sender, message, receiver, feedback, effects, context)
• List the obstacles to communication as well as the factors that promote it.	Main obstacles (e.g. prejudices, stereotypes, lack of attention, selective listening) Factors promoting communication (e.g. empathy, respect, attentive listening, clarity of expression, assertive communication)
• Learn about the characteristics of verbal and nonverbal communication.	Verbal communication: content of the message Nonverbal communication: tone of voice, gestures, facial expression
• Examine their communication skills based on their personal experience.	Personal strengths and weaknesses
Participation Phase	
• Participate in simulation exercises on the attitudes and behaviours to adopt with different stakeholders in landscaping: customers, coworkers, entrepreneurs.	Means of communication Active listening, asking questions, assertive communication Adapting one's communication style to the other person Handling delicate situations (e.g. dissatisfied customers)

• Participate in simulation exercises on the attitudes and behaviours that promote cooperation in a team.	Constructive criticism Respect for other people's expertise and prerogatives Feedback Valuing the contribution of others Knowing how to gain respect by respecting others
Synthesis Phase	
• Analyze, on their own, situations that highlight their strengths and weaknesses regarding their ability to communicate and work in a team.	Personal evaluation Objectives for improvement
• Produce a report describing their strengths and weaknesses regarding their ability to communicate at work.	Content of the report Conditions and presentation format
For the competency as a whole:	
• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies
• Apply the main rules governing effective group discussions.	Basic rules (participating, waiting one's turn to speak, staying on topic, listening to others, paying attention to others, being open to other viewpoints)

Differentiating Plants	Code: 706252

Competency 7 Duration 30 hours Credits 2

Behavioural Competency

Statement of the Competency	Achievement Context
Differentiate plants.	• On a site, working with living materials • Using reference documents

Elements of the Competency	Performance Criteria
1. Make connections between the different plant organs and their functions.	• Accurate identification of plant organs • Accurate association of plant organs and their functions
2. Identify the different categories of herbaceous plants.	• Accurate identification of types of herbaceous plants, based on their life cycle (annuals or perennials)
3. Identify the different categories of woody plants.	• Accurate identification of types of woody plants, based on their main characteristics (size and morphology)
4. Identify various methods of containing plants.	• Accurate identification of plant containing methods • Accurate determination of the precautions to take with plants, based on the container method
	For the competency as a whole: • Use of appropriate terminology • Respect for the living materials used

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 connections between the different plant organs and their functions.
   - Identify different plant organs. — Main tissues (growth, support and protection)
Organs (root, stem, leaf, flower, fruit, seed)
On herbaceous, woody, immature and mature plants

• Identify the functions of plants.	Distinction between the vegetative and reproductive systems of plants Physiological functions (e.g. respiration, transpiration, nutrition, photosynthesis, reproduction, support)
• Identify the stages of plant development.	Growth Stages of development (e.g. germination, plantlet, flower)

2. Identify the different categories of herbaceous plants.

• Describe the morphological characteristics of the major organs of herbaceous plants.	Leaf arrangement and shape Types of inflorescences Types of roots
• Distinguish annuals from perennials.	Duration of cycles: annuals, bi-annuals or perennials Tender and hardy bulbs Main families
• Show concern for using official nomenclature.	Taxonomical rules associated with plant identification Latin and English names

3. Identify the different categories of woody plants.

• Describe the morphological characteristics of the major organs of woody plants.	Deciduous, evergreen and coniferous trees and shrubs Leaf arrangement and shape Bark colour and pattern Bud colour and shape Types of inflorescences Types of roots Habit
• Identify woody plants.	Based on size: shrubs and trees Use of nomenclature Major families

4. Identify various methods of containing plants.

• Associate container materials with woody and herbaceous plants.	E.g. plastic bag: shrubs; plastic pot: perennials; wire basket: large trees
• Make connections between containing methods and the precautions to take.	Root balls and bare roots, depending on climatic factors (e.g. wind, sun, humidity, temperature)

For the competency as a whole:

• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies

Landscaping a Site	Code: 706266

Competency 8 Duration 90 hours Credits 6

Behavioural Competency

Statement of the Competency	Achievement Context
Landscape a site.	• Working in a team, rotating positions • Based on instructions and a landscape plan or sketch • Using raw materials such as herbaceous and woody plants (small or large), amendments, edging, mulch, etc. • Using the necessary tools, equipment and machinery • Using personal protective equipment

Elements of the Competency	Performance Criteria
1. Gather, from a plan or sketch, the information required to landscape a site.	• Complete, relevant information gathered
2. Determine the operations to perform to prepare soil for planting.	• Accurate determination of soil texture class • Appropriate choice of amendments or new soil, depending on needs
3. Estimate the quantities of materials required for the landscaping.	• Accurate determination of living and inert materials required for the landscaping • Accurate calculation of quantities required
4. Plan the work to be done.	• Determination of a logical sequence of operations • Appropriate choice of necessary tools and equipment • Appropriate site preparation
5. Stake the site.	• Accurate transfer of elements from the plan to the site • Correct application of triangulation method • Accurate location of grades and elevations
6. Rough grade the site.	• Proper use of machinery • Appropriate positioning of excavated and backfill material • Rough grading in conformity with the topography suggested in the plan • Proper drainage of surface water

Landscaping a Site	Code: 706266
7. Prepare the planting site.	• Clean, attractive outline of flower beds • Appropriate excavation for the type of planting • Homogeneous planting mixture (soil, amendment, fertilizer)
8. Perform planting and transplanting operations.	• Correct application of planting or transplanting techniques • Proper handling of plants • Proper spacing between plants, depending on the species • Proper positioning of plants • Proper tamping of soil • Appropriate collar height • Effective, attractive staking or guying • Appropriate watering trough • Sufficient watering • Appropriate pruning of branches and roots, if applicable
9. Seed or sod a lawn.	• Appropriate determination of technique and type of grass to use, based on environmental conditions, needs and budget • Observance of sodding techniques • Observance of seeding techniques • Sufficient watering
10. Perform finishing and cleanup operations.	• Uniform mulch layer • Thorough verification of the work done • Proper disposal of debris • Impeccably clean site
	For the competency as a whole: • Compliance with current standards • Compliance with municipal bylaws • Proper use of tools, equipment and machinery • Compliance with occupational health and safety rules • Clean work • Respect for the living materials used • Observance of sustainable development practices • Thorough verification of the quality of the work • Cooperative and respectful attitude towards teammates

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. Gather, from a plan or sketch, the information required to landscape a site.
   - Gather, from a plan or sketch, the information required to landscape a site. — Review of Competency 5

2. Determine the operations to perform to prepare soil for planting.
   - Identify the texture and structure of a soil. — Soil composition
pH
Texture classes
Use of sight, smell and feel
   - Choose amendments and fertilizers. — Types of amendments
Types of fertilizers
Ecological approach
Estimate of quantities based on needs

3. Estimate the quantities of materials required for the landscaping.
   - Fill out estimates forms. — Review of competencies 4 and 7: quantity of plants, plant size

4. Plan the work to be done.
   - Understand the importance of planning. — Purpose of planning
Limits of planning
Plant size
   - Apply a planning process. — Elements of a work plan (e.g. tasks, labour, tools, safety measures)
Sequence of operations

5. Stake the site.
   - Show concern for establishing cooperative relationships with teammates. — Review of Competency 6
   - Prepare the site. — Safety measures: signage
Protection of existing plants
Recovery of useful materials
Positioning of materials and equipment

6. Rough grade the site.
   - Show concern for safety while working. — Review of Competency 2
   - Operate machinery. — Review of Competency 3

• Excavate and backfill.	Recovery of top soil Backfilling in successive layers Use of machinery and hand tools Surface drainage
• Show concern for the environment.	Surroundings Work team Living materials and structures

7. Prepare the planting site.

• Cut out flower beds and dig the planting pits.	APPQ and BNQ standards Work methods
• Amend and fertilize the soil.	Adjustment of spreader Work methods

8. Perform planting and transplanting operations.

• Identify the best periods for planting and transplanting plants.	Based on the type of plants Based on the plant packaging method Review of Competency 7
• Apply planting and transplanting techniques.	Handling of plants Positioning and spacing Tamping of soil Height of collar Edging Staking Watering trough Watering

9. Seed or sod a lawn.

• Determine whether to seed or sod a lawn, based on needs and constraints.	Characteristics of suitable species Ecological lawn Sodding techniques Seeding techniques
• Prepare surfaces for sodding or seeding.	Tilling Weeding Edging Finishing raking Rolling
• Sod a lawn.	Positioning of sod strips Seams Rolling Watering

• Seed a lawn.	Calculation of seed quantities Adjustment of the spreader Rolling Watering Seeding on a slope

10. Perform finishing and cleanup operations.

• Use mulch.	Mineral and organic mulch
• Check the work.	Inspection of planted and lawn surfaces Corrective action Disposal of debris

For the competency as a whole:

• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies
• Show concern for making connections between the different components of a landscape design.	Educational aim Importance of seeing the “big picture”
• Show concern for working independently.	Educational aim Proactive attitude Curiosity, receptiveness to learning Ability to foresee what needs to be done
• Adapt their work pace to the requirements of the job.	Daily work quota Regular pace and focused work

Outdoor Pesticide Use	Code: 704592

Competency 9 Duration 30 hours Credits 2

Behavioural Competency

Statement of the Competency	Achievement Context
Use pesticides outdoors.	• In a nursery, open field, garden centre and during outdoor landscape maintenance work • On ornamental plants affected by pests • Using a variety of pesticides • Based on information about the environmental conditions of the site to be treated • Referring to information on pesticide labels, toxicological data sheets, and reference documents on how to use, calibrate and maintain applicators • Using personal protective equipment

Elements of the Competency	Performance Criteria
1. Develop a one-time action plan to control plant pests.	• Accurate assessment of the extent of the damage identified • Accurate determination of the biotic or abiotic agent responsible for the damage • Relevant actions planned, based on the growth stage of the pest, the results of previous actions, the integrated pest management program, environmental conditions
2. Choose a pesticide.	• Observance of selection criteria (e.g. the growth stage of the cultivated plants, environmental conditions, the classification of pesticides, characteristics of pesticides, the factors influencing pesticide efficacy) • Appropriate choice of adjuvant
3. Prepare the materials and equipment required for the pesticide application.	• Appropriate choice of application materials • Appropriate choice of protective equipment for the pesticide preparation and application • Verification of the condition of the equipment • Calibration of the equipment according to current recommendations

4. Prepare the product.	• Organization of an appropriate area in which to prepare and handle the product • Accurate interpretation of the information on the pesticide label and toxicological data sheet • Accurate calculation of the quantity of pesticide to prepare, based on the surface area to cover • Accurate calculation of the concentration of the mixture, based on instructions for the product • Accurate calculation of the product's application rate • Homogeneous mixture • Proper disposal of empty containers
5. Apply the pesticide.	• Consideration of environmental conditions • Consideration of precautions to take to minimize pesticide exposure • Determination of appropriate measures to protect the environment • Continuous verification of the operating condition and flow of the equipment used • Control of pesticide drift • Safe disposal of leftover product and wash water • Maintenance, decontamination and storage of protective equipment and application materials
6. Store the pesticide.	• Determination of the safety measures to adopt, based on the type of product and the type of pesticide used • Relevant corrective action to take with regard to the facilities and the emergency plan
7. Assess the action taken.	• Accurate assessment of the treatment's efficacy • Determination of factors confirming the treatment's success or failure
8. Record technical information in a pesticide usage log.	• Recording of all information such as : plants treated; description of the problem; treatment applied; quantity of pesticide used; treatment result
9. Plan an integrated pest management strategy.	• Compliance with the different steps in the integrated pest management program • Relevant actions
10. Apply the provisions governing pesticide sales.	• Correct application of the general principles governing pesticide sales • Proper record keeping of pesticide sales • Inclusion of accurate information in the pesticide inventory • Relevant corrective action to take with regard to the company's facilities and emergency plan

For the competency as a whole:

- Compliance with occupational health and safety rules
- Compliance with the *Pesticide Management Code* and other laws and regulations governing environmental protection and pesticide use
- Adoption of practices recommended by the Ministère du Développement durable, de l'environnement et des Parcs
- Ongoing concern for the effects of pesticides on the environment
- Logical sequence of operations

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. Develop a one-time action plan to control plant pests.

• Associate biotic or abiotic agents with the characteristics of the damage identified.	Interpretation of visual and morphological signs Identification of pests
• Measure the extent of the damage.	Sampling methods Assessment of the relevance of the action to take Consultation of action logs

2. Choose a pesticide.

• Identify the consequences of pesticide use for the environment and health.	Short-term and long-term effects of pesticides on plants and animals Effects on human health Reliable sources of information on safe pesticide use Extent and limitations of scientific knowledge
• Distinguish the various regulatory provisions governing pesticide use.	Roles and responsibilities of the various levels of government Current laws and regulations Certification standards
• Distinguish different pesticides, based on their properties and the conditions for their effective use.	Physical and chemical characteristics, formulation and mode of action Compatibility between pesticides and adjuvants Climate and edaphic conditions Growth stages of the plants and the organism with respect to pesticide use

3. Prepare the materials and equipment required for the pesticide application.

• Select the pesticide application equipment and the protective equipment.	Distinction between different types of pesticide application equipment Conditions for use Effectiveness of personal protective equipment, based on the products used and exposure
• Check the equipment and make the necessary adjustments.	Application of procedures recommended in manufacturers' manuals Techniques for adjusting the flow rate and boom height of the application equipment

4. Prepare the product.

• Interpret the information intended for pesticide users.	Personal protective measures Precautions specific to products Obligations stipulated in the regulations Rules to follow concerning the layout of the work area Importance of planning purchases Protocols for the disposal of empty containers
• Interpret toxicological data sheets.	Interpretation of data sheets
• Calculate quantities and apply mixing protocols.	Calculation of doses and dilutions Mixing protocol: wettable powders, liquid concentrates, emulsions, pesticide packets

5. Apply the pesticide.

• Handle application equipment.	Recognition of the importance of using application equipment properly Handling technique specific to each type of equipment Applicable safety rules
• Observe environmental conditions that can impede the quality of the application.	Temperature, air convection, relative humidity, wind speed, land slope, soil texture, soil type and degree of wetness of the foliage Adaptation of the application to the environmental conditions
• Take precautions to minimize the risk of human and environmental exposure to pesticides.	Measures to control drift, runoff and leaching Precautions based on the source of exposure Procedure for disposing of leftover products and wash water Procedure for maintaining, decontaminating and storing equipment

6. Store the pesticides.	
• Ensure compliance with standards and conditions governing pesticide storage.	Storage techniques Placement of different products Materials and containers used Health and safety measures
• Recognize the importance of an emergency plan and identify its main elements.	Preventive measures Preparation measures Measures in the event of leakage, fire, accident, etc.
7. Assess the action taken.	
• Check the results of the treatment.	Relative importance of criteria to assess efficacy Signs to check in order to assess treatment efficacy and determine factors responsible for treatment failure
8. Record technical information in a pesticide usage log.	
• Recognize the importance of pesticide usage logs.	Headings in a pest control log
• Record information.	Recording of technical information such as crop/plant treated, description of the problem, treatment used, pesticide quantity used, treatment result)
9. Plan an integrated pest management strategy.	
• Describe integrated pest management.	Specific strategies and methods Compatibility between management tactics Usual planning steps
10. Apply the provisions governing pesticide sales.	
• Recognize the importance of the salesperson's role.	Responsibility of the salesperson to the company and to customers Importance of correctly identifying customers' plant health problems in order to suggest alternatives to chemical pesticides, if applicable Importance of ensuring that customers have the necessary protective equipment and are aware of safety measures, in order to protect their health and the environment

• Comply with legislation governing the sale and display of pesticides.	Categories and classes of pesticides Permits and certificates Organization of pesticides in displays, based on the type of container (format and packaging material) Organization based on type of organism targeted by the pesticide Positioning of protective equipment Protective measures for staff and customers when setting up a pesticide display Customer access to displays: safety and regulations
• Recognize the principles of pesticide management in stores.	Keeping of a pesticide sales register Inventory Safety provisions: emergency plan, prohibited products, and sales permits for retailers and wholesalers
For the competency as a whole:	
• Situate the competency within the program.	Reason for the competency Course outline Connections with the other competencies
• Show concern for safety when using pesticides.	Main safety hazards or risks Preventive measures, review of the competency *Ensure health, safety and physical well-being on construction sites* Educational aim
• Show concern for working autonomously.	Educational aim Proactive attitude Ability to foresee what needs to be done Curiosity, receptiveness to learning

Grounds Maintenance	Code: 706277

Competency 10 Duration 105 hours Credits 7

Behavioural Competency

Statement of the Competency	Achievement Context
Maintain grounds.	• Based on instructions • Working with herbaceous and woody plants and biotic and abiotic agents • Using inert materials, raw materials such as amendments, fertilizers, pesticides, geotextile membranes, winter protection materials or mulch • Using photos, technical documentation and computer tools • Using the necessary tools, equipment and machinery • Using personal protective equipment

Elements of the Competency	Performance Criteria
1. Look for information on how to maintain the plants on a site.	• Accurate determination of the characteristics of each plant on the site • Accurate identification of the genus and species of each plant on the site, using its common and Latin name • Optimal use of research methods • Gathering of all necessary information • Selection of relevant information on how to maintain plants
2. Perform lawn maintenance operations.	• Appropriate choice of maintenance operations, based on needs • Proper execution of the maintenance operations selected • Impeccably clean site
3. Perform maintenance operations on herbaceous and woody plants.	• Appropriate choice of maintenance operations, based on types of plants, climatic factors, the season, morphological characteristics, etc. • Proper execution of the maintenance operations selected • Impeccably clean site

4. Solve plant health problems.	• Timely, accurate detection of abiotic or biotic problems • Appropriate solutions recommended to restore plant health • Consideration of integrated pest management principles • Accurate calculation of the quantity of maintenance products • Compliance with regulations governing pesticide use
5. Fill out a maintenance record.	• Accurate information regarding follow-up • Clear information provided • Proper use of terminology
	For the competency as a whole: • Compliance with occupational health and safety rules • Compliance with current standards • Observance of work techniques • Observance of integrated pest management principles and sustainable development practices • Proper use of tools, equipment and machinery • Clean work • Respect for the living materials used

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. Look for information on how to maintain the plants on a site.

• Identify the plants to maintain.	Genus and species of the most common plants in landscaping (review of Competency 7)
• Gather the information required to maintain plants.	Use of research methods (review of Competency 5) Synthesis of relevant information (e.g. hardiness, water requirements, soil, light) Customer file
• Show concern for sustainable development.	Connections between maintenance practices and sustainable development

2. Perform lawn maintenance operations.

• Choose lawn maintenance operations in accordance with needs.	Fertilization, dethatching, aeration, mowing, etc. Based on the season, type of use (e.g. residential, golf, athletic field), the customer's budget, principles of sustainable development

• Use lawn maintenance tools, equipment and machinery.	Review of Competency 3: safe use of aerator, dethatcher, brush cutter and mower
• Apply lawn maintenance methods.	Lawn renovation Top dressing

3. Perform maintenance operations on herbaceous and woody plants.

• Choose maintenance operations in accordance with needs.	Fertilization, pruning, propagation, hoeing, weeding, watering, etc. Based on the season, type of plant, climatic factors, the customer's budget, principles of sustainable development
• Use the tools, equipment and machinery required to maintain herbaceous and woody plants.	Review of Competency 3: safe use of cultivator, pruning shears and small hand tools
• Apply methods for maintaining herbaceous and woody plants.	Mulching Hoeing Weeding Division

4. Solve plant health problems.

• Detect biotic and abiotic problems.	Review of Competency 9
• Determine solutions to restore plant health.	Compliance with regulations governing pesticide use Integrated pest management principles Cultural methods: physical, chemical, biological Review of Competency 9
• Use application equipment for plant protection products.	Sprayers Personal protective equipment Review of Competency 9

5. Fill out a maintenance record.

• Understand the importance of keeping a daily log.	Concern for correct grammar and spelling Review of Competency 3
• Understand the importance of planning horticultural work.	In accordance with the season Consequences of poor maintenance

For the competency as a whole:

• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies

Grounds Maintenance	Code: 706277
• Understand the importance of health and safety when maintaining grounds.	Main health and safety hazards or risks Preventive measures Review of Competency 2
• Work independently.	Educational aim Daily work quota Regular pace and focused work

Irrigation and Lighting Systems	Code: 706284

Competency 11 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency	**Achievement Context**
Install irrigation and lighting systems.	• On a site • Working alone or in a team • Based on instructions, irrigation plans and circuit diagrams • Using the necessary tools, equipment and materials • Using personal protective equipment

Elements of the Competency	**Performance Criteria**
1. Interpret instructions regarding the installation of systems.	• Accurate interpretation of the circuit diagram • Accurate interpretation of the irrigation plan • Accurate interpretation of installation instructions
2. Organize their work.	• Appropriate choice of tools, equipment and materials • Thorough verification of the condition of the tools, equipment and materials • Proper repair of defects identified • Thorough planning of the work to be done
3. Determine where to install the systems.	• Accurate location of sprinklers and light fixtures • Proper use of measuring instruments
4. Perform operations related to the installation of an irrigation system.	• Appropriate depth of pipes • Solid connections, pipes and sprinklers • Proper installation of valves and control box • Proper adjustment of sprinklers • Attractive concealment of system components • Safe, functional installation of nozzles • Proper flushing of system
5. Perform operations related to the installation of a lighting system.	• Appropriate depth of wires • Proper installation of control box • Proper wire connections • Appropriate orientation of light fixtures • Safe, functional installation

6. Program the systems.	• Appropriate programming, based on the types of plants, the customer's needs and municipal bylaws, if applicable • Thorough verification of the system once it has been programmed
7. Clean and tidy up the work area.	• Impeccably clean site
	For the competency as a whole:
	• Compliance with instructions • Compliance with plans and diagrams • Compliance with occupational health and safety rules • Compliance with current standards • Observance of the sequence of operations • Observance of work techniques • Compliance with municipal bylaws • Proper use of tools, equipment and materials • Observance of the limits to which tools and equipment may be used • Clean work • Respect for living materials

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. Interpret instructions regarding the installation of systems.

• Identify the symbols associated with irrigation and lighting.	Main symbols
• Interpret the irrigation plan and circuit drawing.	APPQ standards Association Irrigation du Québec (AIQ) standards Regulations Review of Competency 5

2. Organize their work.

• Choose tools, equipment and materials.	Tools, equipment and materials required for the installation of irrigation and lighting systems (e.g. electrical tools, plumbing tools, transformers, timers, light fixtures, photovoltaic cells, manometers, rain sensors, narrow shovels) Characteristics of products and materials
• Check the condition of the tools, equipment and materials.	Review of Competency 3: check points and adjustments of new tools and equipment

• Plan the work to be done.	Systems to install List of materials Sequence of operations Time and labour estimates Review of Competency 8

3. Determine where to install the systems.

• Prepare the site.	Safety measures: signage Protection of existing plants Positioning of materials and equipment
• Locate the sprinklers and light fixtures.	Types of sprinklers and light fixtures Use of measuring instruments Review of Competency 5: triangulation

4. Perform operations related to the installation of an irrigation system.

• Install the valves and control box.	AIQ standards Static pressure, constant pressure Loss due to friction Use of charts Flow rate (gpm) Types of valves Safe, functional installation method Flushing of circuit
• Install and adjust the sprinklers.	Based on the type of sprinklers, manufacturer's instructions and intended use Thorough, uniform watering
• Bury the pipes.	Pipe diameter Importance of levels Possible obstacles Solid pipe and sprinkler connections
• Conceal the system components.	Aesthetics and effectiveness

5. Perform operations related to the installation of a lighting system.

• Distinguish between their role and that of an electrician.	Competency Safety Standards Regulations
• Apply electrical concepts.	Ohm's law Parallel circuits Voltage (12 V, 120 V)
• Install and bury wires.	Wire numbering Sheath removing and connector installation Watertightness and solidity Minimum depth

• Install transformers, control boxes and light fixtures.	Installation methods Transformer and light fixture connections Use of a multimeter
• Orient the light fixtures.	Based on the desired effect (e.g. moonlight, overhead, backlighting) Safety
• Check the installation.	Functional and effective system Concealment
6. Program the systems.	
• Understand the importance of adopting a global approach to water.	Sustainable development Regulations Factors influencing water requirements (e.g. soil type, sunlight, temperature, precipitation, plant type, wind) Review of competencies 7 and 8
• Show concern for energy savings.	Sustainable development Costs
• Interpret information provided by manufacturers.	Programming procedure Review of Competency 5: interpretation of technical documentation
7. Clean and tidy up the work area.	
• Show concern for a clean, orderly work area.	Site cleanup Storage of tools, equipment and materials Recovery of reusable materials
For the competency as a whole:	
• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies
• Understand the importance of health and safety when installing irrigation and lighting systems.	Main health and safety hazards or risks Preventive measures Review of Competency 2 (EA2, EA3)
• Show concern for making connections between the different components of a landscaping design.	Main health and safety hazards or risks Preventive measures Review of Competency 2 (EA2, EA3)

Concrete Structures	Code: 706294

Competency 12 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency	Achievement Context
Build concrete structures.	• On a site • Working alone or in a team of two or three people • Based on instructions, diagrams or plans for concrete structures with foundations • Using raw materials (e.g. cement powder, sand, aggregates, wood, iron); the necessary tools, equipment and materials; and personal protective equipment

Elements of the Competency	Performance Criteria
1. Interpret the plan or diagram.	• Accurate interpretation of the plan or diagram
2. Organize their work.	• Appropriate choice of tools, equipment and materials • Thorough verification of the condition of the tools equipment and materials • Proper repair of defects identified • Thorough planning of the work to be done
3. Prepare the crushed stone subbase.	• Appropriate thickness of the subbase for the type of structure and soil • Proper installation of drainage elements, if applicable • Appropriate compacting
4. Build the formwork.	• Dimensions consistent with the instructions or plan • Proper squareness, alignment, levelness and plumbness • Solid, watertight formwork, depending on the structure
5. Install the steel reinforcement.	• Appropriate positioning of the reinforcement

Concrete Structures	Code: 706294
6. Perform concrete placement operations.	• Proper preparation of concrete mix, based on the specifications for: – a Sonotube form – a multilevel slab – an exposed aggregate slab • Proper placement, based on the type of structure (e.g. compaction, vibration, joints, levelling, finishing protection) • Proper use of adjuvants or colouring agents
7. Install anchors.	• Appropriate choice of anchors and anchor points, based on the type of structure • Solid anchors
8. Check the quality of the work.	• Accurate assessment of the finished product, based on established quality criteria • Even, uniform structure • Uniform colour
9. Clean and tidy up the work area.	• Clean structure • Proper cleaning and appropriate storage of tools • Proper disposal of debris • Impeccably clean site
	For the competency as a whole: • Compliance with occupational health and safety rules • Compliance with current standards • Observance of the sequence of operations • Observance of work techniques • Compliance with municipal bylaws • Proper use of tools, equipment and materials • Observance of the limits to which tools and equipment may be used • Cooperative and respectful attitude towards teammates • Cleanliness and concern for the quality of the work • Economical use of materials

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. Interpret the plan or diagram.	
• Use terminology specific to concrete structures.	Formwork (e.g. shoring, tie rods) Concrete (e.g. efflorescence, water/cement (w/c) ratio, honeycomb, freeze-thaw cycle, footings, slabs, walls)
2. Organize their work.	
• Choose tools, equipment and materials.	Tools, equipment and materials specific to concrete and formwork (e.g. mixer, vibrator, trowel, aggregates, adjuvants)
• Check the condition of the tools, equipment and materials.	New tools and equipment Review of Competency 3: check points and adjustments of tools and equipment
• Plan the work to be done.	Sequence of operations Materials, time and labour estimates Presence of underground infrastructures Review of competencies 4 and 8
• Prepare the site.	Safety measures: signage Protection of existing plants Layout of materials and equipment Site staking Review of Competency 8
3. Prepare the crushed stone subbase.	
• Determine the depth of the excavation and the thickness of the subbase.	Based on the type of structure (e.g. wall, stairs, patio, deck, driveway), the type of soil, APPQ standards, CSA standards, BNQ standards, use of levelling instruments Review of Competency 4
• Install drainage elements.	Principles of underground drainage Volume of water to drain Review of surface drainage (Competency 8) Techniques for installing drainage elements: drains, fittings, drain sump, clear crushed stone, geotextile
• Backfill an excavated cavity with crushed stone.	Method of installing crushed stone: successive layers and compaction
4. Build the formwork.	
• Associate formwork to the work to be done.	Types of formwork for a concrete slab, a multilevel slab, a wall, stairs, etc.

• Apply methods of building formwork.	Use of a circular saw Openings in formwork Construction methods, based on the type of structure to build (e.g. stairs, slab, column) Quality criteria (e.g. solidity, squareness, watertightness, alignment, levelness)
5. Install the steel reinforcement.	
• Distinguish different types of reinforcement, based on the work to be done.	Mesh Bars Size and quantity
• Apply a method of installing steel reinforcement.	Based on the type of reinforcement (wire mesh, bars or both) Quality criteria (e.g. spacing and solidity)
6. Perform concrete placement operations.	
• Determine the type of concrete to use.	Prepared on site Delivered mix Based on the desired quantity and quality
• Prepare concrete mixes.	Preparation for a Sonotube form, a multilevel slab or an exposed aggregate slab Use of adjuvant Use of colouring agent Defects or irregularities in a concrete mix
• Place concrete.	Methods of pouring concrete Tamping Vibration Joints Levelling Finishing, texture Hot or cold weather protection Drying and curing Form removal
7. Install anchors in concrete.	
• Choose anchors and anchor points.	Anchorage (e.g. screws, supports, bolts, hooks) Devices: based on function and strength required Anchor points: based on the resistance of the concrete, the device and its function
• Install anchors.	Method of installation: in fresh concrete, in hardened concrete
8. Check the quality of the work.	
• Visually detect irregularities or defects in a concrete structure.	Quality criteria for a concrete structure: even, uniform surface; uniform colour; clean work; irregularities or defects (e.g. honeycombs, shifted or visible reinforcement)

• Polish a concrete surface.	Use of a grinder Method of correcting a defect Special finishing method
9. Clean and tidy up the work area.	
• Wash the tools.	Ways of cleaning tools Removal of contaminated water in the crushed stone subbase
• Show concern for a clean, orderly work area.	Site cleanup Storage of tools, equipment and materials Recovery of reusable materials
For the competency as a whole:	
• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies
• Show concern for safety when building concrete structures.	Main safety hazards or risks Preventive measures Review of Competency 2
• Show concern for establishing cooperative relationships with teammates.	Review of Competency 6
• Assess their work.	Educational aim Importance of being able to assess their work critically and realistically
• Show concern for working independently.	Educational aim Proactive attitude Curiosity, receptiveness to learning Ability to foresee what needs to be done
• Adapt their work pace to the requirements of the job.	Regular pace and focused work
• Show concern for customer satisfaction.	Respectful attitude Meticulousness, attention to detail, cleanliness Customer feedback

Mortarless Stone and Concrete	Code: 706308

Competency 13 Duration 120 hours Credits 8

Behavioural Competency

Statement of the Competency	**Achievement Context**
Build mortarless structures using stone and concrete products.	• On a site • Working in a team, rotating positions • Based on instructions and a plan or diagram • Using raw materials (e.g. natural stone, concrete products, stone dust, sphagnum moss) • Using the necessary tools, equipment and machinery • Using personal protective equipment
Elements of the Competency	**Performance Criteria**
1. Organize their work.	• Accurate interpretation of the plan or diagram • Appropriate choice of tools and equipment • Thorough verification of the condition of the tools, equipment and materials • Proper repair of defects identified • Thorough planning of the work to be done
2. Determine the quantity of materials required.	• Accurate calculation of quantities of materials required • Consideration of predetermined waste factor
3. Build a mortarless stone wall and patio.	• Functional layout of materials • Appropriate selection of stones • Stones cut in conformity with the desired finish • Harmonious combination of stones • Level, even structure, in conformity with established rules • Joints properly staggered or laid out • Uniform joints • Stable edges of the stone cladding
4. Build a wall and walkway using mortarless concrete products.	• Level, even structure, in conformity with established rules • Joints properly staggered or laid out • Uniform joints • Solid borders around the concrete products

5. Check the quality of the work.	• Accurate assessment of the finished product, based on established quality criteria • Even, uniform surface • Uniform colour • Clean work
6. Clean and tidy up the work area.	• Proper cleaning and appropriate storage of tools • Methodical disposal of debris • Impeccably clean site
	For the competency as a whole: • Compliance with occupational health and safety rules • Compliance with current standards • Observance of the sequence of operations • Observance of work techniques • Compliance with municipal bylaws • Proper use of tools, equipment and materials • Observance of the limits to which tools and equipment may be used • Cooperative and respectful attitude towards teammates • Cleanliness and concern for the quality of the work • Economical use of materials

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. Organize their work.

• Use terminology specific to stone or concrete products.	Template, line work, overhang, flagstone path, weathering, etc.
• Interpret the plan or diagram.	Review of Competency 5
• Choose tools, equipment and materials.	Terminology associated with stonework Tools, equipment and materials specific to stones and concrete products (e.g. carbide-tipped chisel, concrete saw, guillotine cutter, vibrating plate, stone, sand, concrete products)
• Check the condition of the tools, equipment and materials.	Review of Competency 3: check points and adjustments of new tools and equipment
• Plan the work to be done.	Review of Competency 8: time and labour estimates

• Prepare the site.	Safety measures: signage Review of Competency 8: protection of existing plants, layout of materials and equipment, site staking
2. Determine the quantity of materials required.	
• Do various calculations associated with mortarless structures made out of stone and concrete products.	Manufacturers' catalogues Price lists APPQ standards Review of Competency 4: waste factor and economical use of materials
• Calculate stairs.	Formulas Standards: manufacturers, APPQ
3. Build a mortarless stone wall and patio.	
• Prepare a crushed stone subbase.	Determination of depth Installation of drainage elements Levelling Backfill and compaction Review of Competency 12
• Install bedding for the stone.	Installation method Thickness of the bedding
• Select the stone.	Based on the type of work: wall or patio Setting aside stones for wall coping
• Cut the stone.	Use of cutting tools (hammer, chisel) Safe cutting technique for a wall, patio Use of templates Quality criteria (e.g. clean cuts, absence of nicks, observance of angles and dimensions) Economical use of materials
• Lay the stone.	Safe installation method for a wall, patio Handling equipment Quality criteria (e.g. levelness, evenness, uniform stones and joints)
• Do the finishing work.	Wall coping Joint filling for a wall and patio
4. Build a wall or walkway using mortarless concrete products.	
• Install bedding for the pavers.	Installation method Thickness of the bedding
• Lay concrete products.	Installation methods: using pavers, blocks Quality criteria (e.g. evenness, levelness, alignment, uniform colour)

• Install borders.	Installation methods Quality criteria (e.g. alignment, regular curves, solidity)
• Cut concrete products.	Safe cutting method, based on the characteristics of the raw materials and the desired finish Use of cutting tools and accessories (e.g. guillotine cutter, table saw, portable concrete saw, templates) Quality criteria (e.g. clean cuts, absence of nicks, observance of angles and dimensions) Review of Competency 4: calculation of angles
• Do the finishing work.	Joint filling Tamping of pavers with vibrating plate Fastening of coping units (for walls)
5. Check the quality of the work.	
• Visually detect irregularities or defects in a mortarless structure made with stone or concrete products	Quality criteria for the overall structure: evenness, uniform surface; uniform colour; clean structure; irregularities or defects (e.g. broken pavers, unstable stones); blending of the structure with the rest of the project
6. Clean and tidy up the work area	
• Show concern for a clean, orderly work area.	Tool cleaning Disposal of debris Site cleanup Storage of tools, equipment and materials Recovery of reusable materials
For the competency as a whole:	
• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies
• Show concern for safety when building mortarless structures using stone and concrete products.	Main safety hazards or risks Preventive measures Review of Competency 2
• Show concern for establishing cooperative relationships with teammates.	Review of Competency 6
• Assess their work.	Educational aim Importance of being able to assess their work critically and realistically
• Show concern for working independently.	Educational aim Proactive attitude Curiosity, receptiveness to learning Ability to foresee what needs to be done
• Adapt their work pace to the requirements of the job.	Daily work quota Regular pace and focused work

Mortared Stonework	Code: 706312

Competency 14 Duration 30 hours Credits 2

Behavioural Competency

Statement of the Competency	Achievement Context
Build mortared stone structures.	• Outdoors, working alone or in a team of two or three people • Based on instructions and diagrams • Using raw materials (e.g. cement powder, sand and natural stone) • Using the necessary tools and equipment • Using personal protective equipment

Elements of the Competency	Performance Criteria
1. Organize their work.	• Accurate interpretation of the plan or diagram • Appropriate choice of tools and equipment • Thorough verification of the condition of the tools and equipment • Proper repair of defects identified • Thorough planning of the work to be done
2. Build a mortared stone wall and patio.	• Appropriate selection of stones • Stones cut in conformity with the desired finish • Harmonious combination of stones • Level, even structure, in conformity with established rules • Joints properly staggered and laid out • Proper preparation of mortar • Sufficiently uniform joints • Watertight sealed joints • Compliance with instructions regarding joint depth • Compliance with instructions regarding the position of the drainage pipe inside the wall
3. Clean the structures.	• Proper removal of stains and disposal of debris
4. Check the quality of the work.	• Thorough verification of the finished product, based on established quality criteria
5. Clean and tidy up the work area.	• Proper cleaning and storage • Impeccably clean site

For the competency as a whole:

- Compliance with occupational health and safety rules
- Compliance with current standards
- Observance of the sequence of operations
- Observance of work techniques
- Compliance with municipal bylaws
- Proper use of tools and equipment
- Proper use of measuring instruments
- Observance of the limits to which tools and equipment may be used
- Cooperative and respectful attitude towards teammates
- Clean work
- Economical use of materials

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. Organize their work

• Interpret the plan or diagram.	APPQ standards Regulations Review of Competency 5
• Choose tools, equipment and materials.	Tools, equipment and materials specific to stones and mortar joints (e.g. mortar board, mixer, jointer, masonry cement, stone, sand)
• Check the condition of the tools, equipment and materials.	Check points and adjustments of new tools and equipment Review of Competency 3
• Plan the work to be done.	Types of structures (e.g. wall, patio, bench, column) Sequence of operations Time and labour estimates Review of Competency 8
• Prepare the site.	Safety measures: signage Protection of existing plants Layout of materials and equipment Site staking Levelling Preparation of subbase Review of competencies 8 and 12

2. Build a mortared stone wall and patio.	
• Determine the quantity of materials required.	Characteristics of the materials and products (e.g. type of stone, masonry cement, masonry sand) APPQ standards Review of Competency 4
• Prepare and spread the mortar.	Methods of preparing mortar Setting bed
• Detect defects in a mortar mix.	Consistency, colour, segregation of the mortar mix Excessively wet or dry mortar Proportions of different components in the mix
• Cut the stone.	Safe cutting technique: for a wall, patio Quality criteria (e.g. clean cut, absence of nicks, observance of angles and dimensions) Economical use of materials Review of Competency 13
• Lay the stone.	Safe installation methods: for a wall, patio Based on the equipment selected (e.g. cyclopean, polygonal, isodome) Expansion joints Coping materials for walls
• Fill the joints.	Types of joints (e.g. concave, convex, raked, extruded, butt joints) Thickness of the joints based on the materials used, the type of construction, aesthetics, etc. Sealing, finishing
3. Clean the structures.	
• Remove stains.	Drying time Cleaning products Brushing
• Dispose of excess mortar and cleaning products.	Environmentally friendly disposal of debris and cleaning products
4. Check the quality of the work.	
• Detect irregularities or defects in mortared stonework.	Quality criteria for the structure (e.g. even and uniform surface, colour and joints; clean work)
5. Clean and tidy up the work area.	
• Wash the tools.	Ways of cleaning tools Removal of contaminated water in the crushed stone subbase

• Show concern for a clean, orderly work area.	Site cleanup Storage of tools, equipment and materials Recovery of reusable materials
For the competency as a whole:	
• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies
• Understand the importance of health and safety when building mortared stone structures.	Main safety hazards or risks Preventive measures Review of Competency 2
• Adapt their work pace to the requirements of the job.	Daily work quota Regular pace and focused work

Wooden Structures	Code: 706327

Competency 15 Duration 105 hours Credits 7

Behavioural Competency

Statement of the Competency	Achievement Context
Build wooden structures.	• Outdoors or in a workshop • Working alone or in a team of two or three people • Based on instructions or plans for a structure • Using raw materials such as lumber, glue, hardware (e.g. screws, bolts, nails) • Using the necessary tools and equipment • Using personal protective equipment

Elements of the Competency	Performance Criteria
1. Organize their work.	• Accurate interpretation of the plan • Appropriate choice of hardware, tools and equipment • Thorough verification of the condition of the tools and equipment • Proper repair of defects identified • Thorough planning of the work to be done
2. Determine the quantity of materials required.	• Accurate calculation of quantities of materials required • Consideration of predetermined waste factor
3. Check the materials ordered.	• Thorough verification of the conformity of materials with established specifications
4. Build a fence.	• Correct application of techniques for building a fence • Proper installation of fence sections • Functional installation of a gate in the fence
5. Build an arbour.	• Correct application of techniques for building an arbour • Solid assembly • Careful finishing
6. Build a deck and stairs.	• Correct application of techniques for building a deck • Proper installation of beams and joists • Even spacing between planks
7. Clean and tidy up the work area.	• Proper cleaning and appropriate storage of tools • Impeccably clean site

For the competency as a whole:

- Conformity with the plan
- Compliance with occupational health and safety rules
- Compliance with current standards
- Observance of the sequence of operations
- Observance of work techniques
- Proper cutting of pieces
- Proper marking out of pieces
- Proper assembly of pieces
- Compliance with municipal bylaws
- Proper use of tools and equipment
- Thorough verification of the quality of the work
- Observance of the limits to which tools and equipment may be used
- Cooperative and respectful attitude towards teammates
- Clean work
- Economical use of materials

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. Organize their work.

• Interpret the plan or diagram.	Characteristics of wooden structures used in landscaping (e.g. bench, arbour, pergola, stairs, deck) Review of Competency 5
• Choose tools, equipment and materials.	Tools, equipment and materials specific to carpentry (e.g. circular saw, saw bench, router, drill, hardware, preservatives) Terminology associated with carpentry (e.g. beam, joist, post, board foot, assembly, counter brace)
• Check the condition of the tools, equipment and materials.	Check points and adjustments of new tools and equipment Review of Competency 3
• Plan the work to be done.	Review of Competency 8: sequence of operations, time and labour estimates
• Prepare the site.	Safety measures: signage Layout of materials and equipment, site staking

2. Determine the quantity of materials required.	
• Identify materials and products related to wooden structures.	Characteristics of products (e.g. sealants, preservatives, stains, brackets, lag screws) Characteristics of materials: varieties of wood (e.g. spruce, pine, cedar), types of lumber (e.g. dry, green or treated wood), etc. Standard dimensions
• Do various calculations associated with wooden structures.	Waste factor and economical use of materials Manufacturers' catalogues Price lists APPQ standards Review of Competency 4 Review of Competency 13: stair calculations
3. Check the materials ordered.	
• Detect irregularities or defects in wood that can affect the quality of the work.	Use of sight and touch to detect defects (e.g. premature decay, knots, warping, checks or splits)
• Check deliveries.	Conformity with purchase order: type, quantity, price Quality of the materials
4. Build a fence.	
• Anchor the fence.	Levelling Steel piles Review of Competency 12: Sonotube forms
• Construct and assemble fence sections.	Types (e.g. privacy, louvre) Calculation of section lengths Installation methods Use of brackets Quality criteria (e.g. aesthetics, levelness, absence of marks or checks, solidity)
5. Build an arbour.	
• Assemble an arbour.	Styles (e.g. classical, cottage) Preparation of wood pieces required to build an arbour Assembly methods Quality criteria (e.g. aesthetics, solidity)
• Install an arbour.	Installation methods
6. Build a deck with stairs.	
• Prepare the foundations for a deck with stairs.	Levelling Installation of footings Anchoring to the house Review of Competency 12

• Install beams or posts and joists.	Fastening methods (e.g. nails, metal fasteners, counter braces)
• Install the floor.	Installation methods Staggered joints, spacing and straightening of boards Platform patterns
• Install the railing.	Safety standards Fastening methods (e.g. post extension, bolted, wedged with a joist)
• Build and install the stairs.	Types of stairs (e.g. straight, angled, with a landing) Preparation of the stringer Assembly methods Installation methods
• Check the quality of the work.	Quality criteria (e.g. solidity, aesthetics, safety)

7. Clean and tidy up the work area.

• Show concern for order and cleanliness.	Disposal of debris Storage of tools, equipment and materials Recovery of reusable materials Site cleanup

For the competency as a whole:

• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies
• Understand the importance of health and safety when building wooden structures.	Main safety hazards or risks Preventive measures Review of Competency 2
• Adapt their work pace to the requirements of the job.	Daily work quota Regular pace and focused work
• Assess their work.	Educational aim Importance of being able to assess their work critically and realistically
• Show concern for establishing cooperative relationships with teammates.	Review of Competency 6

Job Search	Code: 706331

Competency 16 Duration 15 hours Credit 1

Behavioural Competency

Statement of the Competency	**Achievement Context**
Use job search techniques.	• Based on actual and potential jobs in landscaping • Using the appropriate documentation
Elements of the Competency	**Performance Criteria**
1. Write a résumé.	• Relevant information included • Clear, concise text • Correct grammar and spelling
2. Write a job application letter.	• Relevant text with respect to the job • Compliance with standards regarding job application letters
3. Undergo a job interview.	• Compliance with presentation rules and conventions during interviews • Relevant answers and actions
	For the competency as a whole: • Compliance with standards regarding the format of written documents • Quality of verbal and written communications

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. Write a résumé.
   - Identify the qualities of an effective résumé. — Quality of the content; Quality of the language; Quality of the presentation
   - Choose a résumé format. — Chronological; Competency-based; Mixed format

2. Write a job application letter.

• Identify the qualities of an effective letter of application.	Quality of the content Quality of the language Quality of the presentation

3. Undergo a job interview.

• Prepare for a job interview.	Techniques for requesting and preparing job interviews Gathering information on the company Personal presentation
• Adopt desirable attitudes and behaviours during interviews.	Ability to listen to others and express themselves Arguments Courtesy Tone of voice

For the competency as a whole:

• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies
• Plan a job search.	Personal inventory Preparation of a list of useful newspapers or organizations Gathering useful information on potential employers

Water and Rock Gardens	Code: 706344

Competency 17 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency	**Achievement Context**
Build and maintain a water and a rock garden.	• On a site • Working in a team • Based on instructions or plans • Using raw materials such as sand, rocks, soil, geotextiles and geomembranes as well as pond supplies (e.g. pumps, pipes, adaptors, fittings, fill valves) • Using the necessary tools, equipment and materials • Using personal protective equipment
Elements of the Competency	**Performance Criteria**
1. Interpret the plan and sketch.	• Accurate interpretation of the water garden plan • Accurate interpretation of the rock garden sketch
2. Organize their work.	• Appropriate choice of tools and equipment • Thorough verification of the condition of the tools and equipment • Proper repair of defects identified • Thorough planning of the work to be done
3. Dig the pond.	• Proper excavation, in accordance with the plants to be installed • Observance of elevations suggested
4. Install the pond liner.	• Proper preparation of the surfaces to be covered by the membranes • Proper installation of overflow, if applicable • Accurate determination of the size of the geomembrane • Proper installation of geotextile fabric • Proper installation of the geomembrane • Watertight system • Appropriate anchoring of the geomembrane
5. Install the water supply system.	• Proper installation of water supply • Proper installation of fill valve • Appropriate concealment of fill valve

6. Finish the edges of the pond.	• Careful finishing • Meticulous installation of finishing materials (e.g. stone, concrete products or wood)
7. Build a rock garden.	• Appropriate excavation, in accordance with the rocks to be installed • Harmonious arrangement of rocks • Horizontal strata • Proper angle and depth of placement • Appropriate soil preparation, in accordance with the plants used
8. Place plants in a pond or rock garden.	• Accurate identification of aquatic and alpine plants, according to their common and Latin names • Harmonious positioning of plants, in accordance with the desired effect
9. Maintain a pond or rock garden.	• Appropriate choice of pond maintenance operations, in accordance with needs • Appropriate choice of rock garden maintenance operations, in accordance with needs • Proper execution of maintenance operations • Compliance with regulations governing pesticide use • Accurate recording of information on the follow-up sheet regarding the maintenance of plants requiring special care
	For the competency as a whole: • Compliance with instructions • Compliance with the plan and sketch • Compliance with occupational health and safety rules • Compliance with current standards • Observance of the sequence of operations • Observance of work techniques • Compliance with municipal bylaws • Proper use of tools and equipment • Proper use of measuring instruments • Observance of the limits to which tools and equipment may be used • Observance of sustainable development practices • Thorough verification of the quality of the work • Clean work • Economical use of materials • Cooperative and respectful attitude towards teammates

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. Interpret the plan and sketch.	
• Identify types of ponds.	Characteristics of types of ponds, based on use, strength, ease of installation, cost, etc. Adaptation of the plan to the site, based on the variable dimensions of the stones Review of Competency 5
2. Organize their work.	
• Choose tools, equipment, and inert and living materials.	Tools, equipment, inert and living materials specific to building and maintaining water and rock gardens (e.g. waterproof membranes, preformed ponds, fibreglass ponds, pumps, nozzles, filters, 12V underwater light fixtures, aquatic and alpine plants)
• Check the condition of the tools, equipment and materials.	Check points and adjustment of new tools and equipments Inert and living materials Review of Competency 3 Review of competencies 8 and 10: special tools
• Plan the work to be done.	Review of Competency 8: planting; time, labour and materials estimates; sequence of operations
• Prepare the site.	Review of Competency 8: protection of existing plants, layout of materials and equipment, site staking, levelling
3. Dig the pond.	
• Excavate the water garden.	Depth of excavation and aquatic plants Review of competencies 3 and 8: excavation, operating machinery, cut and fill
• Install drains.	Review of Competency 12
• Establish a safety perimeter.	Review of Competency 2: collective protective equipment
4. Install the pond liner.	
• Prepare the surface.	Removal of stones and roots Finishing raking Sand bed

• Lay out the membranes.	Determination of the size of the geotextile fabric Determination of the size and thickness of the waterproof membrane Installation methods Care to avoid puncturing the material Elimination of wrinkles and concealment of folds
• Install the overflow.	Function Overflow systems (e.g. subsurface drain, overflow, skimmer, gutter)
• Install the pump.	Installation methods Relationship between flow rate and pressure, waterfall and fountain Circulation, biological balance and dormant zones Check valve
• Make the system watertight.	Perforation repairs Membrane height and water level Wick effect
5. Install the water supply system.	
• Install the water feed.	Connection Pipe diameter Layout Source
• Install the fill valve.	Installation method Desired water level Solidity and stability
• Conceal the float.	Concealment methods: stone, wood, plants Discretion of the float Operation of the float
6. Finish the edges of the pond.	
• Install materials to finish the edges of the pond.	Stones, concrete products, wood, etc. Review of competencies 8, 12, 13, 14 and 15
• Conceal the pipes and pumps.	Concealment methods
• Check the quality of their work.	Review of competencies 8, 12, 13, 14 and 15: quality criteria, access to the pump
• Show concern for making connections between the different components of a landscape design.	Educational aim

7. Build a rock garden.	
• Excavate in accordance with the rocks to be installed.	Depth Foundations Drainage
• Lay out the rocks.	Safe handling Natural layout or terraces Uniform distribution Horizontal strata Angle and depth of placement and stability Surface erosion
• Prepare the soil.	Amendments Characteristics of alpine plants Review of Competency 8
8. Place plants in a pond or rock garden.	
• Choose rock garden plants.	Alpine plants Dwarf plants Bulbs, annuals, perennials; deciduous, evergreen and coniferous shrubs; small deciduous and coniferous trees
• Choose aquatic plants.	Emergent plants Submerged plants Floating plants Floating foliage plants
• Plant or install plants.	Review of Competency 8: planting
9. Maintain a pond and a rock garden.	
• Collect the information required to maintain the plants.	Synthesis of relevant information (e.g. hardiness, water requirement or water level, soil, light) Review of Competency 5: use of research methods
• Maintain the plants in a pond.	Removal of dead leaves Fertilization Overwintering depth Review of competencies 9 and 10
• Maintain the plants in a rock garden.	Weeding, hoeing, etc. Review of competencies 9 and 10

• Perform other pond maintenance operations.	Maintenance of biological balance Wildlife Filters, water treatment products, flocculants, aerator, etc.
For the competency as a whole:	
• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies
• Understand the importance of health and safety when building and maintaining a water and a rock garden.	Main health and safety hazards or risks Preventive measures Review of Competency 2
• Adapt their work pace to the requirements of the job.	Daily work quota Regular pace and focused work
• Show concern for establishing cooperative relationships with teammates.	Review of Competency 6
• Show concern for making connections between the different components of a landscape design.	Educational aim Importance of seeing the “big picture”

Landscape Design Sketches	Code: 706353

Competency 18 Duration 45 hours Credits 3

Behavioural Competency

Statement of the Competency	**Achievement Context**
Produce a sketch for a residential landscape design.	• Based on photos; a site layout plan; information about the customer's needs, preferences and budget; and a work schedule • Using measuring instruments, drawing materials, reference documents (e.g. suppliers' catalogues, price lists)

Elements of the Competency	**Performance Criteria**
1. Obtain information about the customer's needs, preferences and budget.	• Gathering of all necessary information • Listening attentively to the customer
2. Survey the site.	• Accurate, precise measurements of grades and elevations • Accurate location of existing features
3. Draw a freehand sketch of the landscaping features.	• Attractive sketch • Appropriate choice of plants and inert materials • Compliance with the customer's preferences and budget • Observance of the established scale and proportions • Compliance with current standards and conventions • Proper planning and organization of different spaces • Accurate assessment of the quantities of plants and raw materials required • Consideration of new trends in horticulture • Compliance with the work schedule • Proper spelling • Cleanliness and legibility
4. Present the sketch to the customer.	• Clear, accurate information • Convincing arguments justifying choices

For the competency as a whole:

- Compliance with current standards
- Compliance with municipal bylaws and regulations
- Observance of professional ethics
- Clean work
- Polite, respectful attitude towards the customer

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. Obtain information about the customer's needs, preferences and budget.

• Identify the main styles in residential landscape design.	History of gardens Garden styles (e.g. English, French, Asian, cottage, modern)
• Identify the main types of landscaping operations.	Review of competencies 8, 11, 12, 13, 14,15 and 17
• Adapt to the customer.	Special requests (e.g. non-traditional landscaping, problems with neighbours, bylaws) Active listening Politeness and respect
• Gather information on the customer's needs.	Profile (e.g. number of residents, children, animals) Preferences (e.g. styles, plants, materials) Financial capability
• Look for information.	Sources of information Trends (e.g. green roof, native plants, dynamic gardening, outdoor kitchen, tropical plants) Review of Competency 5

2. Survey the site.

• Identify relevant information.	Existing structures (e.g. shed, clothesline, trees) Public utilities (e.g. electricity, gas, water) Openings (e.g. doors, windows) Attention to detail Review of Competency 5: triangulation
• Use measuring instruments.	Measuring tape, traditional levels, laser levels, etc. Review of Competency 4

3. Draw a freehand sketch of the landscaping features.	
• Draw the background.	Use of drawing tools Use of site layout plan Basic techniques Types of lines Review of Competency 5: symbols, use of scale
• Transfer onto the sketch the measurements and features from the site or plan.	Concern for accuracy Review of Competency 5: triangulation
• Draw the different areas of a landscape design.	Public, private or service areas Principles of composition (e.g. balance, rhythm, simplicity, unity) Drainage APPQ standards and regulations
• Draw the structures of a landscape design.	Parking, patio, walkway, wall, rock garden, etc.
• Determine the desired effect and type of planting.	Privacy, colour, contrast, natural appearance, etc. Hedge, mass planting, specimen, flower bed, etc.
• Prepare an estimate for materials and costs.	Catalogues and price lists Review of Competency 4: calculation of materials
4. Present the sketch to the customer.	
• Prepare a presentation for the customer.	Supporting materials (e.g. software, photos, books, magazine, catalogues) Clean documents Preparation of arguments
• Show concern for the quality of language.	Spoken and written language Special attention to grammar and spelling
• Communicate the proposal to the customer.	Quality of communication (e.g. clarity, accuracy, relevance of information) Openness to criticism and changes Professional image (politeness, courtesy, cleanliness) Verification of customer satisfaction
For the competency as a whole:	
• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies
• Show concern for making connections between the different components of a landscape design.	Educational aim Importance of seeing the “big picture”

Landscape Design Sketches	Code: 706353
• Show concern for customer satisfaction.	Respectful attitude Meticulousness, attention to detail, cleanliness Customer feedback
• Show concern for establishing cooperative relationships with teammates.	Review of Competency 6

Entering the Workforce	Code: 706365

Competency 19 Duration 75 hours Credits 5

Situational Competency

Statement of the Competency

Enter the workforce.

Elements of the Competency

- Look for a practicum position.
- Become familiar with the realities of the trade.
- Practise the skills, attitudes and habits acquired during training.
- Become aware of how a practicum will change their perception of the trade.

Learning Context

Information Phase

- Becoming familiar with information about the practicum and its terms and conditions.
- Listing the companies likely to take in trainees.
- Undertaking steps to find a practicum position.

Participation Phase

- Observing the work setting: types of landscaping operations, types of projects, internal structure of the company, working conditions, health and safety, interpersonal relations, etc.
- Observing and participating in different work-related tasks.

Synthesis Phase

- Making connections between their actions in the workplace and the knowledge acquired during training.
- Discussing the accuracy of their perception of the trade before and after the practicum: workplace, trade practices, etc.
- Discussing how their practicum affects their career choice: aptitudes, preferences and interests

Instructional Guidelines

- Provide students with the means to help them choose an appropriate practicum position.
- Maintain close ties between the school and the host company.
- Make it possible for students to observe and carry out various work-related tasks.
- Make sure trainees are under the constant supervision of a responsible individual in the host company.
- Ensure the regular support and supervision of students.
- Intervene if problems or difficulties arise.
- Encourage students to take part in discussions.

Participation Criteria

Information Phase

- Gather information about the practicum and the host company's organization.
- Use methods to find a practicum position: selection criteria, solicitation, interview, etc.

Participation Phase

- Comply with instructions concerning authorized activities, work schedules and other company rules.
- Comply with the occupational health and safety rules.
- Participate actively in or observe different tasks, depending on the case.
- Note their observations on the workplace and the tasks performed.

Synthesis Phase

- Identify aspects of the trade that differ from their training or their perception of the trade.
- Evaluate themselves as future employees, based on their training.
- Participate in the evaluation of their practicum with the teacher and the practicum supervisor.
- Discuss their experience in the workplace with other students.

Suggestions for Competency-Related Knowledge and Know-How

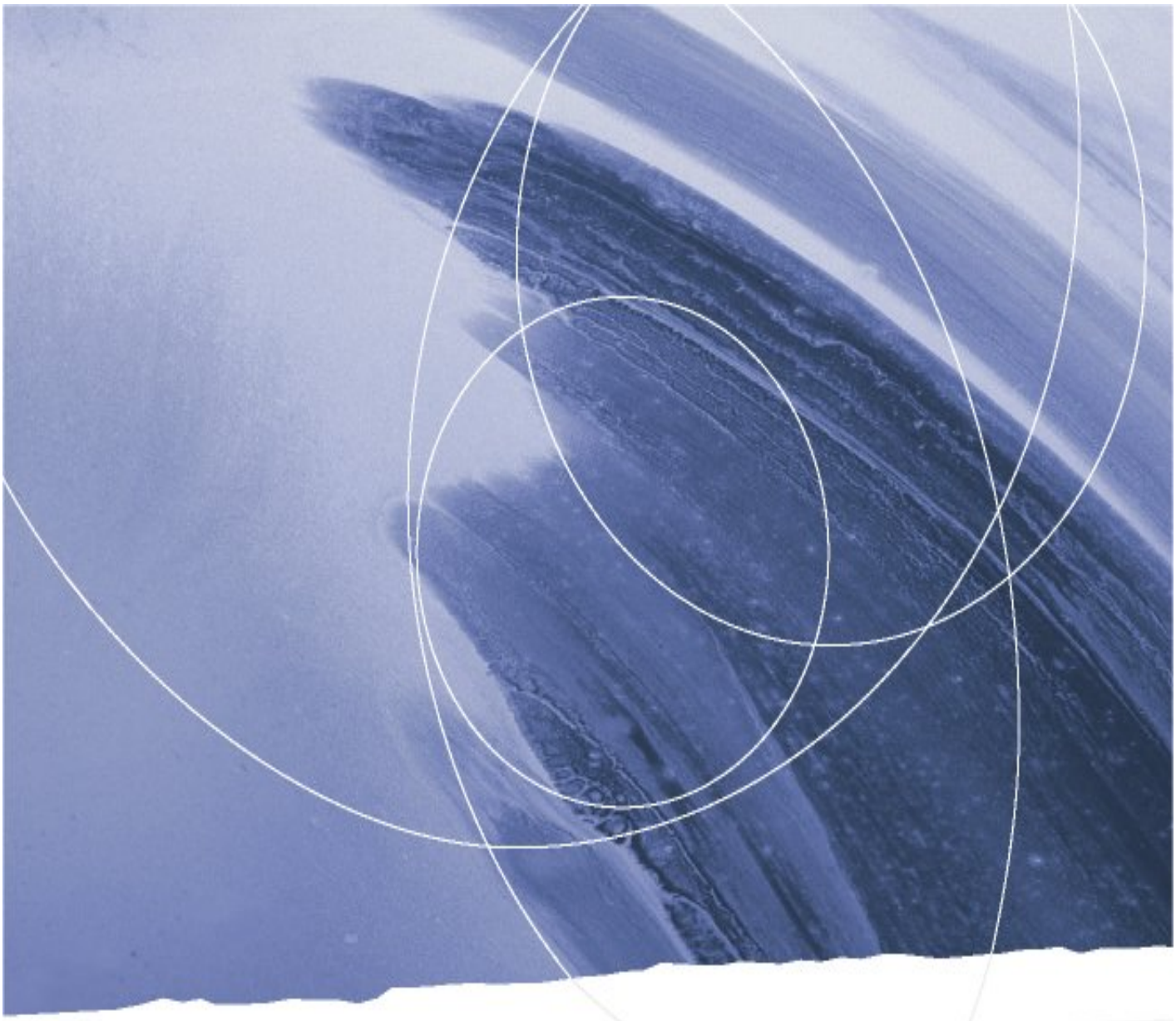
The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each phase of the learning context, along with their attendant guidelines.

Information Phase	
• Become familiar with information, terms and conditions regarding the practicum.	Objectives of the practicum, duration, instructional guidelines, participation criteria
• Make a list of the companies likely to take in trainees.	Determination of criteria for choosing a host company: location, types of services offered (maintenance, operations, type of customers (residential, commercial)
• Undertake steps to find a practicum position.	Application of job search strategies Adaptation of their résumé to the companies targeted
Participation Phase	
• Observe the work setting.	Types of landscaping services, types of customers, internal organization, working conditions, health and safety, equipment and machinery, interpersonal relations, etc.
• Observe and participate in different work-related tasks.	Planting, carpentry, cement work, concrete products, etc.

Entering the Workforce	Code: 706365

Synthesis Phase

• Make connections between their actions in the workplace and the knowledge acquired during training.	Principles and techniques Philosophy Performance criteria
• Discuss the accuracy of their perception of the trade before and after the practicum.	Working conditions, performance of tasks and operations, expected performance, etc.
• Discuss how their practicum has affected their career choice.	Aptitudes Preferences Interests
For the competency as a whole:	
• Situate the competency with respect to the training program.	Reason for the competency Course outline Connections with the other competencies
• Adopt a professional attitude.	Attendance Punctuality Politeness Proactiveness Professional ethic



Éducation,
Loisir et Sport
Québec

17-0217-01A