

APPRENTICESHIP IN LANDSCAPE HORTICULTURIST

At a Glance

Faculty

kpu.ca/science (<http://kpu.ca/science/>)

Area of Study:

kpu.ca/hort (<http://kpu.ca/hort/>)

Academic Level:

Vocational

Credential Granted:

Intake Type:

- Open

Curriculum Effective Date:

01-Sep-2019

Description

KPU's Landscape Horticulturist Apprenticeship Training Program provides apprentices with relevant and comprehensive theoretical and practical horticulture education. Landscape Horticulturist is a Red Seal Trade in Canada. The Red Seal endorsement promotes excellence to employers, instills pride in skilled workers, and facilitates labour mobility.

Apprenticeships combine on-the-job training and classroom learning. An apprenticeship is established when an apprentice obtains a SkilledTradesBC Worker Number and identifies a sponsor to register an apprentice with SkilledTradesBC. After apprentices have registered with SkilledTradesBC they can begin to register at KPU for in class training. Apprentices may apply to SkilledTradesBC to recognize prior work-based training hours. Refer to skilledtradesbc.ca/ for information.

Landscape Horticulturist requirements are established in the Landscape Horticulturist Program Outline published by the BC Industry Training Authority. Landscape Horticulturist apprentices complete four 6-week training levels, in sequence, at the KPU Langley Campus.

Combined with their work experience, and their KPU educational experiences, Landscape Horticulturist apprentices become highly skilled and in demand journeypersons in the horticulture industry. They are employed at municipal parks departments, botanical gardens, golf courses, private landscape contractors and arboriculture companies, and as consultants throughout the province and across Canada

Costs

In addition to applicable tuition fees, students require the following:

- textbooks (purchased at the beginning of Level 1, 3, and 4)
- school supplies
- safety footwear (in conformance with WorkSafeBC regulations)
- rain gear and outdoor work wear including work gloves
- field trips

- travel
- accommodation and food

Training Schedules

KPU apprentice training schedules and waitlists are published on Kwantlen Course Search (<http://kpu.ca/registration/timetables/>). Additional apprenticeship training opportunities are listed on Trades Training BC (<https://www.tradetrainingbc.ca/>); this is the hub for BC's Public Trades Training Programs & Services.

Financial Supports for Apprentices

Apprentices may be eligible for financial support for the in-class portion of their training through the EPBC Apprentice Program Financial Supports. Application to this program must be made four to six weeks prior to the start of technical training. Information is available through WorkBC (<https://www.workbc.ca/discover-employment-services/apprentice-services/training-supports/>).

Apprentices must apply separately for Employment Insurance (EI) Benefits no later than the last week of work, or during the first week of training, or they will not be eligible to receive EPBC Apprentice Program Financial Supports. EI information can be obtained by visiting Service Canada (<https://www.canada.ca/en/employment-social-development/corporate/portfolio/service-canada.html>).

The Canada Apprentice Loan is an initiative of the Government of Canada. As of January 2015, apprentices can apply for up to \$4,000 in interest-free loans per period of in-school technical training. Information is available at the Canada Apprentice Loan Service Centre (<https://www.pca-cal.ca/en/Home/>).

Transfer from Horticulture Foundation Programs

Graduates of KPU Horticulture Foundation programs receive credit for Levels 1 and 2 of the technical training.

Student Profile

Students interested in the Landscape Horticulturist apprenticeship program will have a strong desire for hands-on outdoor work, enjoy working in nature and with living things, and be interested in learning about the ecosystems they work in. Individuals with allergies to dust, pollen or plant products, or specific chemicals should be aware of the potential impact on their health. Physical fitness and a healthy back are generally required for a successful career in horticulture. Apprentices may work with plant protection products.

Apprentices in the practical Horticulture Apprenticeship program typically have some work experience or are interested in working in number of horticulture enterprises. For example, they may be working for greenhouse owners, landscape maintenance or construction companies, nurseries, golf courses, municipal parks, or school boards.

Requirements

General Prerequisites

The following requirements apply:

- Completed KPU Apprentice Registration (<http://kpu.ca/trades/apprenticeship-registration/>).
- Active apprentice registration in the BC Apprenticeship system.
- Valid Trade Worker Identification number from SkilledTradesBC. If you do not have a SkilledTradesBC ID, you will need to complete

an apprenticeship registration form through SkilledTradesBC (www.skilledtradesbc.ca (<https://skilledtradesbc.ca/>)) prior to enrolling (Level 1 through to 4). To determine your eligibility please consult with SkilledTradesBC.

Note: International student enrollment requires approval of the Dean.

Curricular Requirements

Note: KPU Tech does not permit students to register in Apprenticeship Levels out of sequence.

SkilledTradesBC is changing the Landscape Horticulturist Program over the period from 2018 through 2021. The Landscape Horticulturist Program Outline and Program Profile are posted on the Landscape Horticulturist webpage at skilledtradesbc.ca (<https://skilledtradesbc.ca/>). Further details will be posted here once available.

It is important for Landscape Horticulturist apprentices to be clear about which version of the program they are registered in. If you completed Level One training before September 2018, or are not certain if you are in the Harmonized program, please contact SkilledTradesBC Customer Service.

Credential Awarded

Upon successful completion of an apprentice level, KPU will report your technical training completion information to SkilledTradesBC in order for SkilledTradesBC to determine credit towards your designated apprenticeship.

Courses

AHHA 1000 0 credits

Hort Apprentice Level 1

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1001 0 credits

Equipment and Safety

A Landscape Horticulturist has a working knowledge of a variety of equipment and safety related functions. They will use motorized equipment and use personal protective equipment and safety related equipment. Apprentices will demonstrate proper selection and use of personal protection equipment. They will describe the procedure for using a fire extinguisher and identify jurisdictional regulations, including WHMIS and WBC Regulations. Apprentices will identify basic engine types, and be able to perform pre-start inspections, and perform equipment maintenance and repairs. (Lines A1; A2-LT 10-13; B2; B4-LT 1, 6; C2-LT1)

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1002 0 credits

Turf Installation and Maintenance

A Landscape Horticulturist has a working knowledge of turf installation, establishment and maintenance. Apprentices will calibrate and use measuring equipment to install growing media and amendments. Apprentices will install turf from seed and sod. Apprentices will be able to describe turf grass functions, nutrition and application technology. They will perform mowing and trimming of grass. They will describe the monitoring, cultivation, irrigation, maintenance and repair of turf grass. (Lines B2-LT1; B3; B4-LT 2,3,4,5; C2-LT3; J5; J6; M3)

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1003 0 credits

Soil Science

A Landscape Horticulturist has a working knowledge soil stewardship. Apprentices will describe the physical properties and functions of soil and soilless media. They will recognize soil and soil management as key to successful practice of horticulture. Apprentices will describe the factors of soil formation, define soil quality and describe the behaviour of water in soil. (Lines C1-LT1, 5, 6, 7; F3-LT1; G3)

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1004 0 credits

Work Planning

A Landscape Horticulturist has a working knowledge of how to transport equipment and materials, maintain records and use a variety communication methods to maintain a safe and productive work site. Apprentices will assess site hazards and identify potential risks. They will recognize safety signals and symbols and describe how to mitigate risks of workplace accidents and injuries. They will describe the protection of plants in transport and the procedures to load and unload equipment and materials. (Lines A2-LT-1-10; 9; C3-LT 2; C7; C8; E1-LT,6,7)

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1005 0 credits

Grading and Drainage

A Landscape Horticulturist has a working knowledge of pre-construction activities required to prepare sites for construction. Apprentices will be able to describe the considerations for and effects of grading. They will calculate elevations and slopes and perform site grading. They will describe types of drainage systems, their components and functions. Apprentices will perform drainage system installation. (Lines C2-LT 4; H3; H4)

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1006 0 credits

Communications

A Landscape Horticulturist has a working knowledge of documentation pertaining to industry standards. They use a variety of communication and mentoring techniques. Apprentices will describe the characteristics of effective teams and describe conflict management. They will describe effective written and verbal communication techniques and effective feedback. (Lines C2-LT1; E1-LT1-5)

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1007 0 credits**Plant Science**

A Landscape Horticulturist has a working knowledge of the morphology, anatomy, physiology, and sexual reproduction of plants. Apprentices identify leaf morphology, typical inflorescences, fruits and organ modifications of plants. They will describe seed characteristics and their development. (Lines F1)

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1008 0 credits**Plant Materials**

A Landscape Horticulturist has a working knowledge of a variety of different plant families and species and can identify them using a variety of methodologies. Apprentices will identify at least 50 woody and non-woody species common to British Columbia using several different methodologies. Apprentices will describe the morphological characteristics of a variety of common plants, including buds, leaf scar, stems, bark, inflorescences, leaf arrangement and morphology, and growth habit. They will describe the benefits of plants. (Lines G1-LT4; F2)

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1009 0 credits**Plant Health**

A Landscape Horticulturist has a working knowledge of the conditions and practices that effect plant health. Apprentices will describe the environmental and growing conditions and recognize the horticultural practices that effect plant health. They will use appropriate terminology to describe the signs and symptoms of plant health. They will examine plant organs for evidence of abiotic and biotic stressor. (Lines F3- LT 2,3,4,5,6)

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1010 0 credits**Maintain Exteriorscape**

A Landscape Horticulturist has a working knowledge of a variety of hand tools and techniques to maintain exteriorscapes. They can discuss documentation and describe the purpose and procedures of exteriorscape maintenance. Apprentices will perform visual inspections and perform a variety of techniques to maintain exterior landscapes according to contract documents and industry standards. Apprentices will create a maintenance plan for an exterior softscape. (Lines B1; C1-LT 1-4; C2-LT2; C3-LT1; G1; M1)

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1011 0 credits**Level 1 Final Exam**

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1012 0 credits**Work Planning & Communication**

A Landscape Horticulturist has working knowledge of how to transport equipment and materials, maintain records and use a variety communication methods to maintain a safe and productive work site. They will recognize safety signals and symbols and describe how to mitigate risks of workplace accidents and injuries. They will use a variety of communication and mentoring techniques. Apprentices will describe the characteristics of effective teams and describe conflict management. They will describe the protection of plants in transport and the procedures to load and unload equipment and materials (Lines A2-LT-1-10; C3-LT 2; C7; C8; E1-LT,6,7) and (Lines C2-LT1; E1- LT1-3) (AHHA 1004 and 1006 combined June 2019)

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1024 0 credits**Harmonized Level 1 Final Exam**

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1025 0 credits**Harmonized Horticulture Apprenticeship Level 2**

A Landscape Horticulturist has a working knowledge of a variety of equipment and safety related functions. They will use motorized equipment and use personal protective equipment and safety related equipment. Apprentices will demonstrate power tool maintenance and storage. They will identify basic vehicle systems and components. They will inspect vehicle and equipment and operate motorized vehicles.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1026 0 credits**Machinery and Equipment**

A Landscape Horticulturist has a working knowledge of a variety of equipment and safety related functions. They will use motorized equipment and use personal protective equipment and safety related equipment. Apprentices will demonstrate power tool maintenance and storage. They will identify basic vehicle systems and components. They will inspect vehicle and equipment and operate motorized vehicles.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1027 0 credits

Landscape Construction and Communications

A Landscape Horticulturist has a working knowledge of documentation pertaining to industry standards. They must examine site conditions, and mark utilities and areas to be improved prior to construction. Apprentices will be able to read plans, interpret project specifications and identify relevant legislation and company policies. They will be able to maintain records, and describe the procedures for organizing and transporting equipment and materials. They will describe the procedure to attach a trailer to a vehicle. A Landscape Horticulturist has a working knowledge to plan and prepare a site according to plans and jurisdictional requirements. Apprentices will assess the site and identify markings for private and public utilities. They will analyze the existing plants and soil conditions. Apprentices will discuss opportunities for water stewardship. They will prepare the site for landscape construction. A Landscape Horticulturist has a working knowledge of how to install and maintain hardscape landscape elements. Apprentices will select and use hand and power tools and motorized equipment for landscape construction. They will layout and prepare the area according to standards and specifications. Apprentices will install surface materials such as patios or walkways. They will install retaining walls. They will describe the maintenance requirements for surface materials and steps and walls.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1028 0 credits

Soil Stewardship

A Landscape Horticulturist has a working knowledge soil stewardship. Apprentices will describe the physical, chemical and biological properties of soil and soilless media. They will summarize nutrient management and discuss remediation of sites. They will discuss the importance of preserving soil health and identify the considerations when selecting soil amendments.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1029 0 credits

Plant Science

A Landscape Horticulturist has a working knowledge of the morphology, anatomy, physiology, and sexual reproduction of plants. They will examine the internal anatomy of stems, roots and leaves as they relate to photosynthesis, respiration and transpiration. They will explain the influence of environmental factors on plant physiology.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1030 0 credits

Plant Materials

A Landscape Horticulturist has a working knowledge of a variety of different plant families and species, and can identify them using a variety of methodologies. Apprentices will identify at least 75 woody and non-woody species common to British Columbia using several different methodologies. Apprentices will describe the morphological characteristics of a variety of common plants, including buds, leaf scar, stems, bark, inflorescences, leaf arrangement and morphology, and growth habit. They will describe plant hardiness and the characteristics of weeds.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1031 0 credits

Pruning Shrubs, Groundcovers and Vines

A Landscape Horticulturist has a working knowledge of hand tools and techniques for pruning plant materials. Apprentices will demonstrate techniques for pruning shrubs, groundcovers and vines.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1032 0 credits

Exterior Landscape Practices

A Landscape Horticulturist has a working knowledge of a variety of hand tools and techniques to maintain, install and transplant plants and promote environmental stewardship. They will discuss documentation and describe the purpose and procedures for installing and transplanting plants for exteriorscapes. Apprentices will perform a variety of techniques to maintaining and installing plant material to promote plant health according to contract documents and industry standards, including fertilization and liming. They will calibrate and use measuring equipment to fertilize or lime. They will install will install mulch.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1049 0 credits

Harmonized Level 2 Final Exam

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1050 0 credits

Harmonized Hort App Level 3

A Landscape Horticulturist has a working knowledge of a variety of equipment and safety related functions. They will use motorized equipment and use personal protective equipment and safety related equipment. Apprentices will demonstrate power tool maintenance and storage. They will identify basic vehicle systems and components. They will inspect vehicle and equipment and operate motorized vehicles.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1051 0 credits

Construction

Apprentices will explore both the theory and practice of landscape construction. They will have an opportunity to practice the construction and installation of landscape features such as retaining walls, paving stones and wood construction. COURSE OBJECTIVES 1. Describe the Use and Maintenance of Hand and Power Tools 2. Demonstrate Install Landscape Structures, Walkways, Patios, Steps & Retaining Walls 3. Describe Maintenance of Walkways, Patios & Parking Lots 4. Maintain Water Features, Landscape Lighting, Steps & Retaining Walls 5. Maintain Landscape Structures

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1052 0 credits**Irrigation and Lighting**

A landscape horticulturist has to understand and recognize the uses of water and light in the landscape. Apprentices will explore, understand and describe the basics of irrigation system design and maintenance. This class has a hands on achievement criteria where the apprentices will prepare and install a small irrigation system. They will examine water management, water efficiency and water stewardship as it applies to the landscape. They will identify soil characteristics, climate and environmental issues that influence water needs in the landscape. Apprentices will examine and explain how to design, install and maintain decorative water features in the landscape - their pieces, parts and how they function. Apprentices will describe and discuss low voltage lighting systems - their application and purpose - used in our landscapes.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1053 0 credits**Plant Health**

Landscape Horticulturists will be able to manage pests, diseases, and invasive species. They will be able to identify the differences between biotic and abiotic plant stress. They will examine the characteristics of pests, diseases and invasive species. They will apply integrated controls applicable to the location of the pest and the pest itself.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1054 0 credits**Plant Materials**

A Landscape Horticulturist has a working knowledge of a variety of different plant families and species, and can identify them using a variety of methodologies. Apprentices will identify at least 90 woody and non-woody species common to British Columbia using several different methodologies. Apprentices will also be able to recognize plants suitable for common tropical, floral and interior landscape situations.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1055 0 credits**Pruning II**

A Landscape Horticulturist must be able to demonstrate pruning techniques for trees. Apprentices will be able to select and use pruning tools. They will be able to recognize the factors contributing to tree failure. They will be able to describe basic plant morphology, anatomy and physiology in regards to tree pruning. They will be able to describe the considerations and techniques for training young trees and be able to describe compartmentalization as a response to injury to trees.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1056 0 credits**Softscapes**

Apprentices will be able to identify and prioritize job related tasks. They will organize their job sites for sequencing of tasks, materials and equipment set up and deliveries. They will describe how to keep organized records and access available reference material. Apprentices will describe the importance of customer relations, merchandising and marketing themselves and their products. Apprentices will install and maintain interior landscapes. They will describe the restrictions and difficulties in interior landscapes – from preparation and planting to access and clean up. Apprentices will also describe seasonal plant maintenance.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1074 0 credits**Harmonized Level 3 Final Exam**

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1075 0 credits**Harmonized Hort App Level 4**

A Landscape Horticulturist has a working knowledge of a variety of equipment and safety related functions. They will use motorized equipment and use personal protective equipment and safety related equipment. Apprentices will demonstrate power tool maintenance and storage. They will identify basic vehicle systems and components. They will inspect vehicle and equipment and operate motorized vehicles.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1076 0 credits**Green Infrastructure**

Apprentices will be able to select, install and maintain green infrastructure. They will be able to identify components required for the installation of green roofs, green walls as well as rainwater and stormwater systems. Apprentices will identify and describe tools and equipment required for the installation of these systems. They will describe processes and procedures for maintaining green infrastructure. Apprentices will identify non-horticultural elements requiring inspection and maintenance.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1077 0 credits**Estimating**

Preparing estimates is a fundamental task that must be done accurately for the success of a landscape business. Apprentices will interpret landscape drawings and reference documentations pertaining to estimating. They will participate in job planning activities such as identifying and scheduling labour, material, tools and equipment. Apprentices will interpret site information and prepare estimates for basic landscape projects.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1078 0 credits

Plant Health

To ensure the health of plants, apprentices must be able to manage pests, diseases, and invasive plant species. Apprentices will describe conditions that cause plant stress, examine characteristics of pests, diseases and invasive plant species, and apply appropriate treatment methods.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1079 0 credits

Plant Materials

A Landscape Horticulturist can identify plants in different families using a variety of methodologies. Apprentices will identify at least 90 woody and non-woody plants. They will describe native and seasonal plants common to the horticulture industry in BC. Apprentices will describe a variety of habitats to support a range of organisms and biodiverse enhancement strategies.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1080 0 credits

Design

Apprentices will describe the principles of garden design and examine sustainable approaches of design. They will participate in design activities such as selecting and using tools, performing site assessment and drafting of a simple landscape design. Apprentices will describe the design process from client consultation to design phases. They will create a planting plan incorporating design characteristics.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1081 0 credits

Prep for Red Seal

Apprentices will describe the role, responsibilities and skills of a mentor. They will describe learning styles and value of essential skills in the workplace. Apprentices will review all competencies from Level 1 to Level 4 and will write weekly quizzes in preparation for the Red Seal Exam.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1082 0 credits

Plant Health Prep

Apprentices will describe the role, responsibilities and skills needed to compose and execute a successful IPM program in diverse landscape settings. They will describe and possess the essential workplace skills to execute treatment and control methods for a variety of landscape pests and diseases, including but not limited to; weeds, invertebrates, vertebrates, and plant pathogens that cause plant disease. Apprentices will review all competencies from Level 1 to Level 4 and will write weekly quizzes regarding all aspects of plant health and pest management in preparation for the Red Seal Exam.

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)

AHHA 1099 0 credits

Harmonized Level 4 Final Exam

Level: VO

Attribute: SCIH (<https://calendar.kpu.ca/courses-az/#courseattributestext>)