Landscape Horticulturist

Guide to Course Content

1-877-363-0536
apprenticeship@gov.sk.ca
saskapprenticeship.ca

Saskatchewan Apprenticeship and Trade Certification Commission

Online: www.saskapprenticeship.ca

Recognition:
To promote transparency and consistency, portions of this document has been adapted from the 2018 Landscape Horticulturist Red Seal Occupational Standard (Employment and Social Development Canada).

A complete version of the Occupational Standard can be found at www.red-seal.ca

STRUCTURE OF THE GUIDE TO COURSE CONTENT

To facilitate understanding of the occupation, this guide to course content contains the following sections:

Task Matrix: a chart which outlines graphically the major work activities, tasks and sub-tasks of this standard detailing the essential skills and the level of training where the content is covered. The Task Matrix is broken down into the following:

Major Work Activity: the largest division within the standard that is comprised of a distinct set of trade activities.

Task: distinct actions that describe the activities within a major work activity.

Sub-task: distinct actions that describe the activities within a task.

Training Profile Chart: a chart which outlines the model for Alberta Apprenticeship technical training.

TRAINING REQUIREMENTS FOR THE LANDSCAPE HORTICULTURIST TRADE

To graduate from each level of the apprenticeship program, an apprentice must successfully complete the required technical training and compile enough on-the-job experience to total at least 1500 hours each year. Total trade time required is 6000 hours and at least 4 years in the trade.

There are four levels of technical training which are delivered outside of the province of Saskatchewan. For more information visit www.Albertatradesecrets.ca:

Level One:	8 weeks
Level Two:	8 weeks
Level Three:	8 weeks
Level Four:	8 weeks

The information contained in this document details the technical training delivered for each level of apprenticeship. An apprentice spends approximately 15% of their apprenticeship term in a technical training institute learning the technical and theoretical aspects of the trade. The hours and percentages of technical and practical training may vary according to class needs and progress.

The content of the technical training components is subject to change without notice.

Entrance Requirements for Apprenticeship Training

Your grade twelve transcripts (with no modified classes) or GED 12 is your guarantee that you meet the educational entrance requirements for apprenticeship in Saskatchewan. In fact, employers prefer and recommend apprentices who have completed high school. This ensures the individual has all of the necessary skills required to successfully complete the apprenticeship program, and receive journeyperson certification.

Individuals with “modified” or “general” classes in math or science do not meet our entry requirements. These individuals are required to take an entrance assessment prescribed by the SATCC.

English is the language of instruction in all apprenticeship programs and is the common language for business in Saskatchewan. Before admission, all apprentices and/or “upgraders” must be able to understand and communicate in the English language.

Designated Trade Name	**Math Credit** at the Indicated Grade Level❶	**Science Credit** at Grade Level
Landscape Horticulturist	Grade 10	Grade 10

❶ - (One of the following) WA – Workplace and Apprenticeship; or F – Foundations; or P – Pre-calculus, or a Math at the indicated grade level (Modified and General Math credits are not acceptable.).

*Applicants who have graduated in advance of 2015-2016, or who do not have access to the revised Science curricula will require a Science at the minimum grade level indicated by trade.

For information about high school curriculum, including Math and Science course names, please see: http://www.curriculum.gov.sk.ca

Individuals not meeting the entrance requirements will be subject to an assessment and any required training

LANDSCAPE HORTICULTURIST
TASK MATRIX CHART

This chart outlines the major work activities, tasks and sub-tasks from the 2018 Landscape Horticulturist Red Seal Occupational Standard. Each sub-task details the corresponding essential skill and level of training where the content is covered. *

* Sub Tasks with numbers in the boxes is where the content will be delivered in training.

A – Performs Common Occupational Skills — 19%

A-1 Performs safety-related functions	1.01 Uses personal protective equipment (PPE) and safety equipment	1.02 Maintains safe work environment			
A-2 Uses tools, equipment and vehicles	2.01 Uses hand tools	2.02 Uses power tools	2.03 Uses measuring equipment	2.04 Uses vehicles and motorized equipment, trailers and attachments	
A-3 Organizes work	3.01 Performs site assessments	3.02 Uses documentation and reference material	3.03 Maintains records	3.04 Participates in job planning activities	3.05 Orders materials
	3.06 Organizes materials and equipment	3.07 Transports materials	3.08 Transports equipment		
A-4 Participates in marketing and sales	4.01 Controls inventory	4.02 Sells products and services	4.03 Maintains customer relations	4.04 Prepares estimates	
A-5 Uses communication and mentoring techniques	5.01 Uses communication techniques	5.02 Uses mentoring techniques			

B – Applies Horticultural Principles — 24%

B-6 Applies horticultural practices	6.01 Identifies plants and plant requirements	6.02 Manages plant health and growing conditions	6.03 Prunes plant material	6.04 Manages pests, diseases and invasive species
B-7 Applies environmental practices	7.01 Practices environmental stewardship	7.02 Practices biodiversity enhancement	7.03 Practices soil stewardship	7.04 Practices water stewardship

C – Performs Landscape Construction — 34%

C-8 Performs pre-construction activities	8.01 Participates in landscape design activities	8.02 Prepares construction site	8.03 Performs grading	8.04 Installs drainage systems	
C-9 Installs hardscape	9.01 Installs landscape structures	9.02 Installs surface materials	9.03 Installs steps and retaining walls	9.04 Installs irrigation systems	9.05 Installs water features
	9.06 Installs low voltage landscape lighting				
C-10 Installs softscape	10.01 Installs growing media	10.02 Installs exterior landscape plants	10.03 Transplants plants	10.04 Installs mulch	10.05 Installs turf from seed
	10.06 Installs sod	10.07 Installs interior landscape plants			

C-11 Installs green infrastructure systems	11.01 Selects green infrastructure	11.02 Installs green roofs and walls	11.03 Installs rainwater and stormwater management systems	11.04 Installs erosion control	11.05 Installs biodiverse plantings and natural areas

D – Performs Landscape Maintenance — 23%

D-12 Maintains hardscape	12.01 Maintains drainage systems	12.02 Maintains landscape structures	12.03 Maintains surface materials	12.04 Maintains steps and retaining walls	12.05 Maintains irrigation systems
	12.06 Maintains water features	12.07 Maintains landscape lighting	12.08 Practices snow and ice control	12.09 Repairs hardscape	
D-13 Maintains softscape	13.01 Maintains exterior softscape	13.02 Maintains interior softscape	13.03 Maintains turfgrass	13.04 Propagates plant material	13.05 Repairs softscape
D-14 Maintains green infrastructure	14.01 Maintains green roofs and walls	14.02 Maintains rainwater and stormwater management systems	14.03 Maintains erosion control	14.04 Maintains biodiverse plantings and natural areas	

E – Works in Production of Plant Material (NOT COMMON CORE) — 0%

E-15 Constructs growing facilities (Not Common Core)	15.01 Builds growing facilities (Not Common Core)	15.02 Installs growing facility components (Not Common Core)

E-16 Operates and maintains growing facilities (Not Common Core)	**16.01 Operates growing facility structures and amenities (Not Common Core)**	**16.02 Maintains sanitary environments (Not Common Core)**	**16.03 Operates climate control systems (Not Common Core)**	**16.04 Operates irrigation and fertigation systems (Not Common Core)**	
E-17 Manages greenhouse crops (Not Common Core)	**17.01 Develops greenhouse crop production plan (Not Common Core)**	**17.02 Propagates greenhouse crops (Not Common Core)**	**17.03 Transplants greenhouse crops (Not Common Core)**	**17.04 Grows greenhouse crops (Not Common Core)**	**17.05 Harvests greenhouse crops (Not Common Core)**
	17.06 Ships greenhouse crops (Not Common Core)				
E-18 Manages nursery crops (Not Common Core)	**18.01 Develops nursery crop production plan (Not Common Core)**	**18.02 Propagates field and container crops (Not Common Core)**	**18.03 Transplants field and container crops (Not Common Core)**	**18.04 Grows field and container crops (Not Common Core)**	**18.05 Harvests field and container crops (Not Common Core)**
	18.06 Ships field and container crops (Not Common Core)	**18.07 Winterizes field and container crops (Not Common Core)**			

This Major Work Activity is not consistently performed by Landscape Horticulturists across Canada, therefore this content is deemed not common core and will not be assessed on the Landscape Horticulturist certification examination.

TRAINING PROFILE CHART

This Training Profile Chart represents Alberta's NAIT/SAIT technical training at the topic level.

Level One
Workplace Safety and Occupational Skills
Trade Related Safety
Tools, Equipment and Vehicles
Soil and Water
Plant properties, Grassland and Parkland
Site Assessment, Grading and Drainage
Turfgrass and Exterior Softscape Maintenance

Level Two
Softscape Installation and Pruning
Surveying and Site Assessment
Physiology, Boreal, Montane and Wetland Plants
Landscape Pests
Conservation
Hardscape Installation and Maintenance

Level Three
Tools, Equipment and Vehicles
Organizes Work
Marketing and Sales
Horticultural Practices
Environmental Practices
Hardscape Installation
Softscape Installation
Hardscape Maintenance
Softscape Maintenance

Level Four
Organizes Work
Mentoring
Horticultural Practices
Environmental Practices
Pre-Construction Activities
Marketing and Sales
Green Infrastructure Installation
Green Infrastructure Maintenance

TECHNICAL TRAINING COURSE CONTENT

This chart outlines the model for Alberta's NAIT/SAIT technical training.

Level One — 8 weeks — 240 hours

Workplace Safety and Occupational Skills

- applies legislation, regulations and practices ensuring safe work
- uses industry standard practices for climbing, lifting, rigging and hoisting
- applies industry standard practices for hazardous materials and fire protection
- manage an apprenticeship to earn journeyperson certification
- use communication strategies

Tools, Equipment and Vehicles

- uses trade related tools
- uses equipment
- maintains hydraulic systems
- operates heavy equipment
- operates commercial vehicles
- transports equipment
- transports materials

Site Assessment, Grading and Drainage

- performs pre-construction site assessment
- interprets utility locates
- performs site grading
- installs drainage systems

Plant properties, Grassland and Parkland

- evaluates plant health
- uses the botanic classification system for plant identification
- uses plants from the grassland and parkland ecosystems

Soil and Water

- uses environmental stewardship principles
- manages soil health
- manages water quality for plant health
- uses soilless media

Turfgrass and Exterior Softscape Maintenance

- installs turfgrass
- maintains turfgrass
- applies fertilizer
- performs exterior softscape maintenance

Level Two — 8 weeks — 240 hours

Surveying and Site Assessment

- conducts site surveys
- prepares construction sites
- coordinates site layout
- maintains relationships with stakeholders

Conservation

- practices environmental conservation
- practices water conservation
- practices soil conservation

Hardscape Installation and Maintenance

- mitigates site risks
- installs surface materials
- installs retaining walls
- maintains drainage systems
- installs stone paving
- uses timber construction techniques

Physiology, Boreal, Montane and Wetland Plants

- manages plant development
- uses plants from the boreal forest region
- uses plants from the montane region
- uses plants from the wetlands

Landscape Pests

- practices integrated pest management
- manages weeds
- manages plant disease
- manages pests
- applies pesticide legislation

Softscape Installation and Pruning

- installs woody plants
- installs mulch
- prunes plants

Level Three — 8 weeks — 240 hours

Project Management

- provides customer service
- plans projects
- manages inventory

Landscape Construction and Irrigation

- constructs water features
- installs landscape lighting
- installs irrigation systems
- maintains irrigation systems

Softscape Maintenance

- repairs softscapes
- installs interior landscape plants
- maintains interior landscapes plants
- practices snow and ice control
- maintains landscape structures

Sustainable Horticultural Practices

- applies environmental practices
- uses introduced herbaceous plants
- uses introduced woody plants

Urban Forestry and Arboriculture

- assesses tree physiology in the landscape
- applies techniques to achieve plant independence in the landscape
- assesses trees
- protects trees in the landscape
- prunes trees
- removes trees

Growing Facilities (Exceed)

- constructs a growing facility
- operates a growing facility
- creates a sanitary environment

Level Four | 8 weeks | 240 hours

Business Administration

- conducts post construction site assessments
- schedules resources for a landscape project
- uses coaching skills when training an apprentice
- describes the role of the network of industry committees that represent trades and occupations
- uses Red Seal products to challenge an interprovincial examination

Contract Management

- prepares estimates for landscape projects
- implements contract security measures
- prepares bids for landscape projects

Landscape Design

- analyzes landscape designs
- uses drafting to create a landscape design
- applies design processes to landscape projects
- develops construction plans

Sustainable Landscape Technologies

- evaluates economics of sustainable landscape technologies
- maintains green roofs
- maintains living walls
- manages rainwater
- controls erosion

Specialty Crops

- grows edible fruit species
- grows vines
- grows geophytes
- grows bedding plants
- grows ornamental grasses

Nursery Production and Greenhouse Crops (Exceed Not Common Core)

- propagates crops
- transplants crops
- grows crops
- harvests crops
- winterizes crops
- ships crops