



Landscape Horticulturist

Course Outline

2022

TRAINING PROFILE CHART

Since Landscape Horticulturist Technical Training is completed in Alberta, this Training Profile Chart represents Alberta Apprenticeship technical training which is performed at the topic level.

Alberta Level One	Hours
Workplace Safety and Occupational Skills	14
Tools, Equipment and Vehicles	34
Site Assessment, Grading and Drainage	22
Plant properties, Grassland and Parkland	74
Soil and Water	60
Turfgrass and Exterior Softscape Maintenance	36
	240

Alberta Level Two	Hours
Safety-Related Functions	
Communications	
Surveying and Site Assessment	32
Conservation	24
Hardscape Installation and Maintenance	70
Physiology, Boreal, Montane and Wetland Plants	40
Landscape Pests	50
Softscape Installation and Pruning	24
	240

Alberta Level Three	Hours
Project Management	20
Landscape Construction and Irrigation	68
Softscape Maintenance	24
Sustainable Horticultural Practices	40
Urban Forestry and Arboriculture	50
Growing Facilities	30
	240

Alberta Level Four	Hours
Business Administration	14
Contract Management	42
Landscape Design	70
Sustainable Landscape Technologies	28
Specialty Crops	38
Nursery Production and Greenhouse Crops	48
	240

TECHNICAL TRAINING COURSE CONTENT

This chart outlines the model for Harmonized technical training sequencing. Saskatchewan apprentices attend technical training in Olds, Alberta. An alternative online apprenticeship option is available by taking classes through the University of Saskatchewan's Prairie Horticulture Certificate Courses. For more information about this option, refer to the Saskatchewan Apprenticeship Online Option Guide to Course Content document. For each harmonized level of training, a cross reference to the Red Seal Occupational Standard (RSOS) apprenticeship technical training sequencing, at the learning outcome level, is provided.

Sub-tasks listed are the minimum to be covered in a topic. Related sub-tasks not listed may be used as a reference and taught "in context" in other topics.

Implementation for harmonization took place progressively. Alberta was responsible to make the Harmonized changes to their curriculum.

Level One	8 weeks	240 hours
Workplace Safety and Occupational Skills		14 hours
<ul style="list-style-type: none">• 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 journeyman certification• use communication strategies		
Tools, Equipment and Vehicles		34 hours
<ul style="list-style-type: none">• uses trade related tools• use equipment• maintains hydraulic systems• operates heavy equipment• operates commercial vehicles• transports equipment• transports materials		
Site Assessment, Grading and Drainage		22 hours
<ul style="list-style-type: none">• performs pre-construction site assessment• interprets utility locates• performs site grading• installs drainage systems		
Plant properties, Grassland and Parkland		74 hours
<ul style="list-style-type: none">• evaluate plant health• uses the botanic classification system for plant identification• uses plants from the grassland and parkland ecosystems		

Turfgrass and Exterior Softscape Maintenance	36 hours
<ul style="list-style-type: none"> • installs turfgrass • maintains turfgrass • applies fertilizer • performs exterior softscape maintenance 	

Level Two	8 weeks	240 hours
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Surveying and Site Assessment	32 hours
<ul style="list-style-type: none"> • conducts site surveys • prepares construction sites • coordinates site layout • maintains relationships with stakeholders 	

Conservation	24 hours
<ul style="list-style-type: none"> • practice environmental conservation • practice water conservation • practice soil conservation 	

Hardscape Installation and Maintenance	70 hours
<ul style="list-style-type: none"> • 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	40 hours
<ul style="list-style-type: none"> • manages plant development • uses plants from the boreal forest region • uses plants from the montane region • uses plants from the wetlands 	

Landscape Pests	50 hours
<ul style="list-style-type: none"> • practices integrated pest management • manages weeds • manages plant disease • manages pests • applies pesticide legislation 	

Softscape Installation and Pruning	24 hours
<ul style="list-style-type: none"> • installs woody plants • installs mulch • prunes plants 	

Level Three	8 weeks	240 hours
Project Management <ul style="list-style-type: none"> • provides customer service • plans projects • manages inventory 		20 hours
Landscape Construction and Irrigation <ul style="list-style-type: none"> • constructs water features • installs landscape lighting • installs irrigation systems • maintains irrigation systems 		68 hours
Softscape Maintenance <ul style="list-style-type: none"> • repairs softscapes • installs interior landscapes plants • maintains interior landscapes plants • practices snow and ice control • maintains landscape structures 		24 hours
Sustainable Horticultural Practices <ul style="list-style-type: none"> • applies environmental practices • uses introduced herbaceous plants • uses introduced woody plants 		40 hours
Urban Forestry and Arboriculture <ul style="list-style-type: none"> • 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 		58 hours
Growing Facilities <ul style="list-style-type: none"> • constructs a growing facility • operates a growing facility • creates a sanitary environment 		30 hours

Level Four

8 weeks

240 hours

Business Administration

14 hours

- 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
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Contract Management

42 hours

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

70 hours

- analyze landscape designs
 - uses drafting to create a landscape design
 - applies design processes to landscape projects
 - develops construction plans
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Sustainable Landscape Technologies

28 hours

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

Specialty Crops

38 hours

- grows edible fruit species
 - grows vines
 - grows geophytes
 - grows bedding plants
 - grows ornamental grasses
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Nursery Production and Greenhouse Crops

48 hours

- propagates crops
 - transplants crops
 - grows crops
 - harvests crops
 - winterizes crops
 - ships crops
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LANDSCAPE HORTICULTURIST TASK MATRIX

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. Implementation for harmonization took place progressively. Level one was to be implemented in 2017/2018, level two 2018/2019, level three 2019/2020, and level four in 2020/2021. Since Saskatchewan apprentices attend training in Alberta, Alberta was responsible to roll out the Harmonized training.

A – Performs common occupational skills

19%

A-1 Performs safety-related functions 19%	1.01 Uses personal protective equipment (PPE) and safety equipment 1 (2, 3, 4 in context)	1.02 Maintains safe work environment 1 (2, 3, 4 in context)			
A-2 Uses tools, equipment, and vehicles 27%	2.01 Uses hand tools 1, 2,3 (4 in context)	2.02 Uses power tools 1, 2,3 (4 in context)	2.03 Uses measuring equipment 1, 2,3 (4 in context)	2.04 Uses vehicles and motorized equipment, trailers, and attachment 1, 2,3 (4 in context)	
A-3 Organizes work 27%	3.01 Performs site assessments 1, 2, 3, 4	3.02 Uses documentation and reference material 1, 2, 3, 4	3.03 Maintains records 1, 2, 3, 4	A-3.04 Participates in job planning activities 3, 4	A-3.05 Orders materials 3
	A-3.06 Organizes materials and equipment 2, 3	A-3.07 Transports materials 1, 2	A-3.08 Transports equipment 1, 2		
Task A-4 Participates in marketing and sales 15%	A-4.01 Controls inventory 3	A-4.02 Sells products and services 3	A-4.03 Maintains customer relations 3	A-4.04 Prepares estimates 4	
Task A-5 Uses communication and mentoring techniques 12%	A-5.01 Uses communication techniques 1	A-5.02 Uses mentoring techniques 4			

B – Applies horticultural principles

24%

Task A-6 Removes and installs trim and hardware 62%	6.01 Identifies plants and plant requirements 1, 2, 3, 4	6.02 Manages plant health and growing conditions 1, 2	6.03 Prunes plant material 2, 3	6.04 Manages pests, diseases, and invasive species 3, 4
Task B-7 Applies environmental practices 38%	B-7.01 Practices environmental stewardship 1, 2, 3, 4	B-7.02 Practices biodiversity enhancement 4	B-7.03 Practices soil stewardship 2	B-7.04 Practices water stewardship 2, 3

C – Performs landscape construction

33%

Task C-8 Performs pre-construction activities 24%	C-8.01 Participates in landscape design activities 4	C-8.02 Prepares construction site 2	C-8.03 Performs grading 1	C-8.04 Installs drainage systems 1	
Task C-9 Installs hardscape 32%	C-9.01 Installs landscape structures 2	C-9.02 Installs surface materials 2	C-9.03 Installs steps and retaining walls 2	C-9.04 Installs irrigation systems 3	C-9.05 Installs water features 3
	C-9.06 Installs low voltage landscape lighting 3				
Task C-10 Installs softscape 28%	C-10.01 Installs growing media 2	C-10.02 Installs exterior landscape plants 2	C-10.03 Transplants plants 2	C-10.04 Installs mulch 2	C-10.05 Installs turf from seed 1
	C-10.06 Installs sod 1	C-10.07 Installs interior landscape plants 3			
Task C-11 Installs green infrastructure systems 16%	C-11.01 Selects green infrastructure 4	C-11.02 Installs green roofs and walls 4	C-11.03 Installs rainwater and stormwater management systems 4	C-11.04 Installs erosion control 4	C-11.05 Installs biodiverse plantings and natural areas 4

D – Performs landscape maintenance

24%

Task D-12 Maintains hardscape 32%	D-12.01 Maintains drainage systems 2	D-12.02 Maintains landscape structures 3	D-12.03 Maintains surface materials 2	D-12.04 Maintains steps and retaining walls 2	D-12.05 Maintains irrigation systems 3
	D-12.06 Maintains water features 3	D-12.07 Maintains landscape lighting 3	D-12.08 Practices snow and ice control 3	D-12.09 Repairs hardscape 2	
Task D-13 Maintains softscape 47%	D-13.01 Maintains exterior softscape 1, 2	D-13.02 Maintains interior softscape 3	D-13.03 Maintains turfgrass 1	D-13.04 Propagates plant material 2	D-13.05 Repairs softscape 3
Task D-14 Maintains green infrastructure 21%	D-14.01 Maintains green roofs and walls 4	D-14.02 Maintains rainwater and stormwater management systems 4	D-14.03 Maintains erosion control 4	D-14.04 Maintains biodiverse plantings and natural areas 4	

E – Works in production plant material (NOT COMMON CORE)

0%

Task E-15 Constructs growing facilities (Not Common Core)	E-15.01 Builds growing facilities (Not Common Core)	E-15.02 Installs growing facility components (Not Common Core)			
Task E-16 Operates and maintains growing facilities (Not Common Core)	E-16.01 Operates growing facility structures and amenities (Not Common Core)	E-16.02 Maintains sanitary environments (Not Common Core)	E-16.03 Operates climate control systems (Not Common Core)	E-16.04 Operates irrigation and fertigation systems (Not Common Core)	
Task E-17 Manages greenhouse crops (Not Common Core)	E-17.01 Develops greenhouse crop production plan (Not Common Core)	E-17.02 Propagates greenhouse crops (Not Common Core)	E-17.03 Transplants greenhouse crops (Not Common Core)	E-17.04 Grows greenhouse crops (Not Common Core)	E-17.05 Harvests greenhouse crops (Not Common Core)
Task E-18 Manages nursery crops (Not Common Core)	E-18.01 Develops nursery crop production plan (Not Common Core)	E-18.02 Propagates field and container crops (Not Common Core)	E-18.03 Transplants field and container crops (Not Common Core)	E-18.04 Grows field and container crops (Not Common Core)	E-18.05 Harvests field and container crops (Not Common Core)

**E-18.06 Ships field
and container crops
(Not Common Core)**

**E-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.

*The Landscape Horticulturist Red Seal Occupational Standard (RSOS), describing the “full scope” of the trade, can be found at www.red-seal.ca.

For more detailed information on course content, please refer to the Landscape Horticulturist Guide to Course Content.