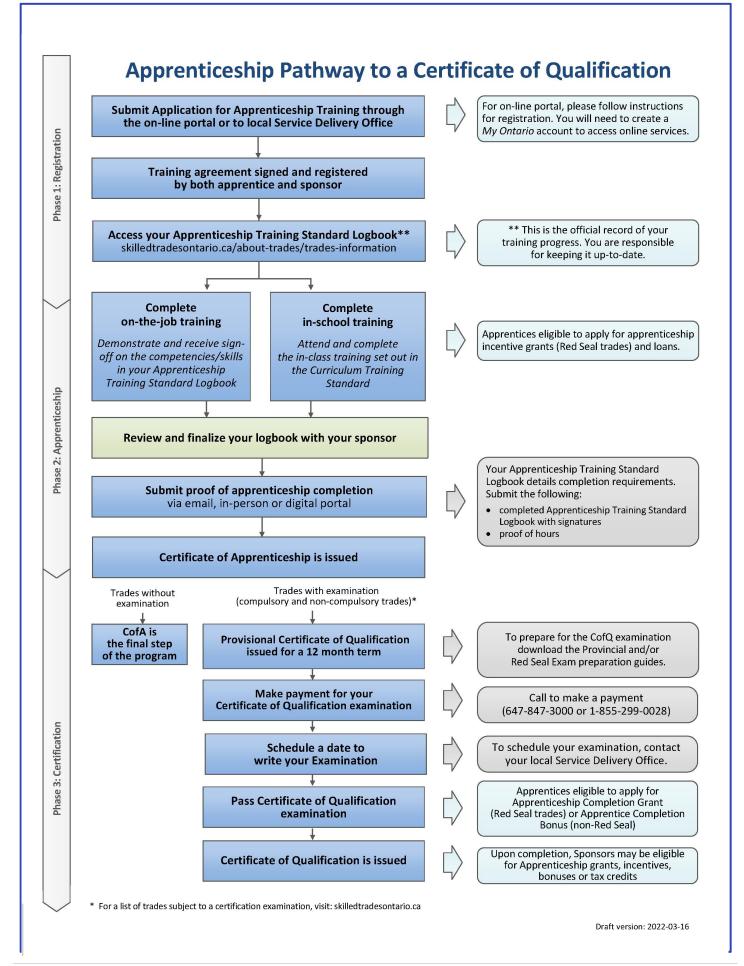


# Horticultural Technician (441C) Training and Curriculum Standard Supplemental Resource Guide

#### **Table of Contents**

Pathway	. 4
Curriculum Standard Reportable Subjects — Program Summary	. 5
Training Standard Skill Sets Mapped to Reportable Subjects	. 7
Training Standard Skill Competencies and Corresponding Section in the Curriculum	. 8



#### Curriculum Standard Reportable Subjects — Program Summary

The structure of this Horticultural Technician curriculum consists of 2 levels of in school training. The program is substantively harmonized with the 2017 Red Seal Occupational Standard (RSOS) for the trade of Landscape Horticulturist, in that the content progresses in a similar sequence. Level 1 of this curriculum covers content from Level 1 and 2 in the RSOS and Level 2 covers, the content from Level 3 and 4 from RSOS.

Number	Reportable Subjects	Hours Total	Hours Theory	Hours Practical	Pre-requisite
Level 1					
3625	Trade Practices -Safety, Tools and Equipment	48	36	12	
3626	Work and Project Organization	24	24	0	
3627	Communication Skills	24	18	6	
3628	Horticultural Principles	60	48	12	
3629	Environmental Principles-Soil, Water, Environmental Stewardship	36	30	6	
3630	Pre-Construction Activities	30	24	6	
3631	Hardscape Installation and Maintenance	48	12	36	
3632	Softscape Installation and Maintenance- Turf	30	24	6	
3633	Softscape Installation and Maintenance	48	36	12	
3634	First Aid-CPR	12	6	6	
	Total	360	258	102	
Level 2					
3635	Site Preparation and Protection	48	18	30	3626
3636	Project Preparation	24	18	6	3626
3637	Marketing and Sales	24	18	6	3627
3638	Plant Identification and Management	42	30	12	3628
3639	Environmental Practices	48	48	0	3629
3640	Hardscape Structures Installation and Maintenance	48	12	36	3630
3641	Plant Health Care – Pest, Diseases & Invasive Species Management	30	24	6	3631
3642	Interior Landscape Installation and Maintenance	24	18	6	3636
3643	Green Infrastructure Installation and Maintenance	48	42	6	3628
3644	Mentoring and Training Techniques	24	18	6	3632
	Total	360	246	114	

Safety, communication, grading and drainage in pre-construction activities are concepts that are reinforced throughout all subjects.

Horticu	Itural Technician Curriculum-Level One		
Number	Reportable Subjects		
3625	Trade Practices -Safety, Tools and Equipment		
3626	Work and Project Organization		
3627	Communication Skills		
3628	Horticultural Principles		
3629	Environmental Principles-Soil, Water, Environmental Stewardship		
3630	Pre-Construction Activities		
3631	Hardscape Installation and Maintenance		
3632	Softscape Installation and Maintenance-Turf		
3633	Softscape Installation and Maintenance		
3634	First Aid-CPR		
Horticu	Itural Technician- Level Two		
	Reportable Subjects		Prerequisite
3635	Site Preparation and Protection	3626	Work and Project Organization
3636	Project Preparation	3626	Work and Project Organization
3637	Marketing and Sales	3627	Communication Skills
3638	Plant Identification and Management	3628	Horticultural Principles
3639	Environmental Practices	3629	Environmental Principles-Soil, Water, Environmental Stewardship
3640	Hardscape Structures Installation and Maintenance	3630 3631 3636	Pre-Construction Activities Hardscape Installation and Maintenance Project Preparation
3641	Plant Health Care –Pest, Diseases & Invasive Species Management	3628	Horticultural Principles
3642	Interior Landscape Installation and Maintenance	3632 3633	Softscape Installation and Maintenance-Turf Softscape Installation and Maintenance
3643	Green Infrastructure Installation and Maintenance	3629 3630 3631 3633 3633	Environmental Principles Pre-Construction Activities Hardscape Installation and Maintenance Softscape Installation and Maintenance
3644	Mentoring and Training Techniques	3627	Project Preparation Communication Skills
3044	Mentoring and Training Techniques	3027	

# Training Standard Skill Sets Mapped to Reportable Subjects

Training Standard	Curriculum Standard Banartable		
Training Standard	Curriculum Standard Reportable		
Skill Sets	Subjects		
9290 Perform Safety-Related Functions	3625 Trade Practices -Safety, Tools and		
	3634 First Aid-CPR		
9291 Use Tools, Equipment and Vehicles	3625 Trade Practices -Safety, Tools and		
	Equipment		
9292 Organize Work	3626 Work and Project Organization		
	3636 Project Preparation		
9293 Participate in Marketing and Sales	3637 Marketing and Sales		
9294 Communication and Mentoring	3627 Communication Skills		
Techniques	3644 Mentoring and Training Techniques		
9295 Manage Plant Health and Growing	3628 Horticultural Principles		
Conditions	3638 Plant Identification and Management		
9296 Manage Pests, Diseases and Invasive	3641 Plant Health Care –Pest, Diseases &		
Species	Invasive Species Management		
9297 Apply Environmental Practices	3629 Environmental Principles-Soil,		
	Water, Environmental stewardship		
	3639 Environmental Practices		
9298 Perform Pre-Construction Activities	3630 Pre-Construction Activities		
	3635 Site Preparation and Protection		
	3636 Project Preparation		
9299 Install Hardscapes	3631 Hardscape Installation and		
	Maintenance		
9300 Install Irrigation Systems and Water	3640 Hardscape Structures Installation		
Features	and Maintenance		
9301 Install Softscapes	3632 Softscape Installation and		
	Maintenance-Turf		
	3633 Softscape Installation and		
	Maintenance		
	3642 Interior Hardscape Installation and		
	Maintenance		
9302 Install Green Infrastructure Systems	3643 Green Infrastructure Installation and		
	Maintenance		
9303 Maintain Hardscapes	3640 Hardscape Structures Installation		
	and Maintenance		
9304 Maintain Softscapes	3633 Softscape Installation and		
	Maintenance		
	3643 Green Infrastructure Installation and		
9305 Maintain Green Infrastructure	3043 Green millastructure installation and		

Skill	Training Standard Skill Competencies	Corresponding Section in the Curriculum
9290.01	Comply with federal and provincial legislation and regulations and municipal by- laws	3625 Trade Practices -Safety, Tools and Equipment (3625.01)
9290.02	Use personal protective equipment (PPE)	3625 Trade Practices -Safety, Tools and Equipment (3625.02)
9290.03	Maintain safe work environment	3625 Trade Practices -Safety, Tools and Equipment (3625.02, 3625.04)
9290.04	Handle hazardous job materials	3632.04, 3633.01, 3633.05. 3641.11
9290.05	Control pedestrian and vehicular traffic	3625 Trade Practices -Safety, Tools and Equipment (3625.02)
9290.06	Transport tools, equipment and materials	3625 Trade Practices -Safety, Tools and Equipment (3625.02)
9290.07	Mount and dismount equipment safely	3625 Trade Practices -Safety, Tools and Equipment (3625.07)
9290.08	Work safely around operating equipment	3625 Trade Practices -Safety, Tools and Equipment (3625.02, 3635.07)
9290.09	Respond to job-site emergencies	3625 Trade Practices -Safety, Tools and Equipment (3625.03)
9291.01	Use hand tools and equipment	3625 Trade Practices -Safety, Tools and Equipment (3625.05)
9291.02	Use power tools and equipment	3625 Trade Practices -Safety, Tools and Equipment (3625.06)
9291.03	Use measuring equipment	3630 Pre-construction Activities (3630.01, 3630.02)
9291.04	Maintain tools and equipment	3625 Trade Practices -Safety, Tools and Equipment (3625.05, 3625.06)
9291.05	Use vehicles, motorized equipment, trailers and attachments	3625 Trade Practices -Safety, Tools and Equipment (3635.07)
9291.06	Maintain vehicles, motorized equipment, trailers and attachments	3625 Trade Practices -Safety, Tools and Equipment (3635.07)
9292.01	Perform site assessments	<ul> <li>3630 Pre-construction Activities (3630.04)</li> <li>3626 Work and Project Organization (3626.02)</li> </ul>

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9292.02	Use documentation	3625 Trade Practices -Safety, Tools and Equipment (3625.08)
		3626 Work and Project Organization (3626.01 3626.03, 3626.04)
		3630 Pre-Construction Activities
		(3630.04, 3630.05)
		3636 Project Preparation (3636.01, 3636.03, 3636.04)
		3633 Softscape Installation and Maintenance (3633.01, 3633.03,
		3633.08)
		3635 Site Preparation and Protection (3635.01)
		3636 Project Preparation (3636.01,
		3636.02, 3636.03, 3636.04, 3636.05)
		3637 Marketing and Sales (3637.01 3637.03)
		3638 Plant Identification and
		Management (3638.05)
		3640 Hardscape Structures Installation
		and Maintenance (3640.02,
		3640.06, 3640.08)
		3641 Plant Health Care (3641.08) 3642 Interior Landscape Installation and
		Maintenance (3642.04, 3642.05,
		3642.06)
9292.03	Maintain records	3625 Trade Practices -Safety, Tools and
		Equipment (3625.08)
		3626 Work and Project Organization
		(3626.01)
		3636 Project Preparation (3636.03)
		3637 Marketing and Sales (3637.01, 3637.05)
		3641 Plant Health Care (3641.08)
9292.04	Participate in job planning	3630 Pre-Construction Activities
	activities	(3630.09) 3636 Project
		Preparation (3636.04)
9292.05	Order materials	Marketing and Sales (3637.01)
9292.06	Monitor inventory	Marketing and Sales (3637.01)
9292.07	Organize materials, plants and equipment	3626 Work and Project Organization (3626.03)
9292.08	Solve problems	3627 Communication Skills (3627.03, 3627.04)
9292.09	Transport materials	3626 Work and Project Organization (3626.04)

9292.10	Transport equipment	3626 Work and Project Organization (3626.04)
9293.01	Sell products and services	3637 Marketing and Sales (3637.02, 3637.04)
9293.02	Maintain customer relations	3637 Marketing and Sales (3637.02, 3637.05)
9293.03	Prepare estimates	3637 Marketing and Sales (3637.03)
9294.01	Write job documents	3627 Communication Skills (3627.06, 3627.07)
9294.02	Practice communication methods to support comprehension	3627 Communication Skills 3644 Mentoring and Training Techniques (3644.01)
9294.03	Coach and mentor apprentice or colleague	3644 Mentoring and Training Techniques (3644.03)
9294.04	Demonstrate leadership	3644 Mentoring and Training Techniques (3644.02)
9294.05	Participate in continuous learning	3644 Mentoring and Training Techniques (3644.04)
9295.01	Identify plants and plant requirements	3628 Horticultural Principles-Plant Science (3628.01, 3628.02, 3628.03. 3628.04, 3628.09) 3642 Interior Landscape Installation and Maintenance (3642.01. 3642.02, 3642.03)
9295.02	Assess the health and vigor of plants	3628 Horticultural Principles-Plant Science (3628.04, 3628.05, 3628.06)
		3633 Softscape Installation and Maintenance (3633.07)
		<ul><li>3641 Plant Health Care (3641.01)</li><li>3642 Interior Landscape Installation and Maintenance (3642.06)</li></ul>
9295.03	Assess plant location for suitability	3628 Horticultural Principles-Plant Science
		3633 Softscape Installation and Maintenance (3633.01)
		3642 Interior Landscape Installation and Maintenance (3642.02)
9295.04	Implement corrective measures	3633 Softscape Installation and Maintenance (3633.07)
		3641 Plant Health Care –Pest, Diseases & Invasive Species Management (3641.02)
		3642 Interior Landscape Installation and Maintenance (3642.06)

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9295.05	Establish pruning objectives	3628	Horticultural Principles-Plant Science (3628.10)
		3633	· · · · · · · · · · · · · · · · · · ·
			Maintenance (3633.05)
9295.06	Prune plant material	3628	Horticultural Principles-Plant
0200.00		0020	Science (3628.10)
		3633	Softscape Installation and
		0000	Maintenance (3633.05)
9295.07	Propagate Plants	3628	Horticultural Principles-Plant
9293.07	Flopagate Flattis	3020	Science (3628.11)
9295.08	Maintaining propagation	3628	
9295.00	Maintaining propagation	3020	Horticultural Principles-Plant
0005.00	environment	2020	Science (3628.11)
9295.09	Condition plants for growing-on	3628	Horticultural Principles-Plant
		0000	Science (3628.11)
		3633	Softscape Installation and
			Maintenance (3633.01, 3633.02,
			3633.03, 3633.06)
9296.01	Identify pests, beneficial	3641	Plant Health Care (3641.03
	insects, diseases and invasive		3641.04, 3641.05)
	species		
9296.02	Determine course of action for	3641	Plant Health Care (3641.05,
	managing pests, diseases and		3641.06, 3641.07, 3641.08)
	invasive species		
9296.03	Implement prevention	3641	Plant Health Care (3641.01
	strategies		3641.06, 3641.07)
9296.04	Apply treatment	3641	Plant Health Care (3641.05
			3641.08, 3641.09)
0000 05		0044	Diant Lia alth Cana (2011.07)
9296.05	Monitor and document results	3641	Plant Health Care (3641.07)
	Dispose of pest infected and	3641	Plant Health Care (3641.04
9296.06	disease-ridden plant material		3641.09)
	and invasive species		,
9296.07	Maintain tools and equipment	3641	Plant Health Care (3641.02,3641.09
9297.01	Use sustainable horticultural		Environmental Practices (3639.03)
	and landscaping materials		
9297.02	Use sustainable materials and	3639	Environmental Practices (3639.03)
0207.02	elements	0000	
9297.03	Select and maintain tools and	3625	Trade Practices -Safety, Tools and
0201.00	equipment minimize negative	0020	Equipment (3625.05)
	impact on environment and		
	ecosystem		
9297.04		3639	Environmental Practices
5291.04	Use practices to integrate on-	2028	
0207.05	site elements	2020	(3639.01, 3639.02, 3639.03)
9297.05	Select plants such as natives	3639	Environmental Practices (3639.03)
	and edibles to create habitats,		
	including wetlands, that support		
	a diverse range of species		

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9297.06	Identify soil quality and	3628	
	condition		Science (3628.07)
		3629	Environmental Principles
			(3629.01, 3629.02, 3629.03)
		3630	Pre-Construction Activities
			(3630.06)
			Environmental Practices (3639.04)
9297.07	Implement a soil stewardship	3639	Environmental Practices
	plan		(3639.04)
9297.08	Identify water quality	3642	Interior Landscape Installation and
			Maintenance (3642.05)
9298.01	Participate in elementary	3636.0	02 Interpret landscape drawings and
	landscape design activities		design intent
			Describe basic landscape
			horticultural design principles
9298.02	Interpret landscape drawings	3636	Project Preparation
			(3636.02)Interpret landscape
			drawing and design intent
9298.03	Prepare construction site	3630	Pre-Construction Activities
			(3630.09)
9298.04	Perform grading	3630	Pre-Construction Activities
	6 6		(3630.05)
9298.05	Install drainage systems	3630	Pre-Construction Activities
	3 ,		(3630.07)
9299.01	Install landscape structures	3640	Hardscape Structures Installation
	'		and Maintenance (3640.01,
			3640.02)
9299.02	Install base materials	3631	Hardscape Installation and
			Maintenance (3631.02)
9299.03	Install surface materials	3631	Hardscape Installation and
			Maintenance (3631.02)
9299.04	Finishing surface materials	3631	
			Maintenance (3631.02)
9299.05	Install base for steps and	3631	Hardscape Installation and
	retaining walls		Maintenance (3631.02)
9299.06	Assemble steps and retaining	3631	Hardscape Installation and
	wall components		Maintenance (3631.02)
9299.07	Complete installation of steps	3631	Hardscape Installation and
	and retaining walls by		Maintenance (3631.02)
9300.01	Install irrigation systems	3640	
			and Maintenance (3640.04)
9300.02	Install water feature	3640	Hardscape Structures Installation
	infrastructure		and Maintenance (3640.07)
9300.03	Install live and decorative	3640	y t
0000.00	components in water features		and Maintenance (3640.07)
9300.04	Install low voltage landscape	3640	Hardscape Structures Installation
3300.04	<b>J</b>	3040	and Maintenance (3640.06)
	lighting		and Maintenance (3040.00)

9301.01	Install growing media	3633 Softscape Installation and
		Maintenance (3633.02)
9301.02	Install exterior landscape plants	3633 Softscape Installation and Maintenance (3633.01)
9301.03	Transplant plants	3633 Softscape Installation and
		Maintenance (3633.06)
9301.04	Install mulch	3633 Softscape Installation and
		Maintenance (3633.03)
9301.05	Install sod	3632 Softscape Installation and
		Maintenance-Turf (3632.03,
		3632.04)
9301.06	Install interior landscape plants	3642 Interior Landscape Installation and
		Maintenance (3642.01- 3642.05)
9302.01	Select green infrastructure	3643 Green Infrastructure Installation
	technologies, methods and	and Maintenance (3643.03)
	products	
9302.02	Install green roofs, walls and	3643 Green Infrastructure Installation
	components	and Maintenance (3643.04)
9302.03	Install stormwater management	3643 Green Infrastructure Installation
	systems	and Maintenance (3643.07)
9302.04	Install erosion control	3643 Green Infrastructure Installation
		and Maintenance (3643.02)
9302.05	Install biodiverse plantings and	3639 Environmental Practices
	natural areas	(3639.02,3639.03)
9303.01	Maintain drainage systems	3640 Hardscape Structures Installation
		and Maintenance (3640.05)
9303.02	Maintain landscape structures	3640 Hardscape Structures Installation
	and features	and Maintenance (3640.03)
9303.03	Maintain surface materials	3640 Hardscape Structures Installation
9303.03		and Maintenance (3640.02)
9303.04	Maintain steps and retaining	3631 Hardscape Installation and
3303.04	walls	Maintenance (3631.03)
9303.05	Maintain irrigation systems	3640 Hardscape Structures Installation
3000.00	Maintain inigation systems	and Maintenance (3640.05)
9303.06	Maintain water features	3640 Hardscape Structures Installation
9303.00		and Maintenance (3640.08)
9303.07	Maintain landscape lighting	3640 Hardscape Structures Installation
9000.07		and Maintenance
		3640 Hardscape Structures Installation
9303.08	Perform snow and ice control	and Maintenance
9303.09	Repair hardscapes	3640 Hardscape Structures Installation
0000.00		and Maintenance (3640.03)
9304.01	Maintain exterior softscape	3633 Softscape Installation and
0004.01	Maintain exterior soltsdape	Maintenance (3633.04)
9304.02	Maintain interior softscapes	3642 Interior Landscape Installation and
0007.02		Maintenance (3642.06)

9304.03	Maintain turfgrass	3632	Softscape Installation and Maintenance-Turf
9304.04	Repair softscapes	3632	Softscape Installation and Maintenance-Turf (3632.07)
9305.01	Maintain green roofs and walls and components	3643	Green Infrastructure Installation and Maintenance (3643.04, 3643.05)
9305.02	Maintain stormwater management systems	3643	Green Infrastructure Installation and Maintenance (3643.07)
9305.03	Maintain erosion control	3629 3639	Environmental Principles (3629.03) Environmental Practices (3639.02)
		3643	Green Infrastructure Installation and Maintenance (3643.02)
9305.04	Maintain biodiverse plantings and natural areas	3639	(3639.01, 3639.03)
		3643	Green Infrastructure Installation and Maintenance (3643.08)