



## COURSE OUTLINE: NRT145 - HORTIC/GROUNDSKEEPER

Prepared: Elisa Muto

Approved: Sherri Smith, Chair, Natural Environment, Business, Design and Culinary

<b>Course Code: Title</b>	NRT145: HORTICULTURE GROUNDSKEEPER
<b>Program Number: Name</b>	5212: ADVENTURE RECREATION
<b>Department:</b>	NATURAL RESOURCES PRG
<b>Academic Year:</b>	2023-2024
<b>Course Description:</b>	Students will receive training in the care and maintenance of grasses, flowers, trees, shrubs and invasive plants associated with managed and manicured landscapes. Practical experience with appropriate equipment in mowing, trimming, watering, planting and transplanting, pest management and pruning will be emphasized.
<b>Total Credits:</b>	3
<b>Hours/Week:</b>	3
<b>Total Hours:</b>	42
<b>Prerequisites:</b>	There are no pre-requisites for this course.
<b>Corequisites:</b>	There are no co-requisites for this course.
<b>Vocational Learning Outcomes (VLO's) addressed in this course:</b>	<p><b>5212 - ADVENTURE RECREATION</b></p> <p>VLO 8 Demonstrate an understanding of sustainable development and apply the foundations in the natural environment.</p> <p>VLO 9 Safely operate and maintain equipment used in Adventure Recreation and Park operations.</p>
<b>Essential Employability Skills (EES) addressed in this course:</b>	<p>EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.</p> <p>EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.</p> <p>EES 4 Apply a systematic approach to solve problems.</p> <p>EES 5 Use a variety of thinking skills to anticipate and solve problems.</p> <p>EES 6 Locate, select, organize, and document information using appropriate technology and information systems.</p> <p>EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.</p> <p>EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others.</p> <p>EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.</p> <p>EES 10 Manage the use of time and other resources to complete projects.</p> <p>EES 11 Take responsibility for ones own actions, decisions, and consequences.</p>
<b>Please refer to program web page for a complete listing of program outcomes where applicable.</b>	



<b>Course Evaluation:</b>	<p>Passing Grade: 50%, D</p> <p>A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.</p>
<b>Other Course Evaluation &amp; Assessment Requirements:</b>	Academic success is directly linked to attendance. Missing more than 1/3 of the course hours in a semester shall result in a F Grade for this Course.

<b>Course Outcomes and Learning Objectives:</b>	<b>Course Outcome 1</b>	<b>Learning Objectives for Course Outcome 1</b>
	Beginning with the basics of soil sciences	1.1 Essential elements for plant growth 1.2 Soil structures 1.3 How plants feed and utilize soil nutrients 1.4 pH and its relationship with essential nutrients and basic plant functions 1.5 Some microorganisms and their relationship and functions in soils that influence plant health and growth 1.6 Composting and nitrogen fixing bacteria 1.7 The carbon to nitrogen ratio
	<b>Course Outcome 2</b>	<b>Learning Objectives for Course Outcome 2</b>
	Study of the practical use of fertilizers and the environment	2.1 What does fertilizer guaranteed analysis mean 2.2 When to use each type of fertilizer and which fertilizer 2.3 Organic versus chemical fertilizers 2.4 Soil-less mixtures versus soil mixtures as growing mediums 2.5 Grow your own geranium cuttings 2.6 Grow your own seedlings
	<b>Course Outcome 3</b>	<b>Learning Objectives for Course Outcome 3</b>
	Basic Plant Anatomy and Development	3.1 Differentiate between angiosperms and gymnosperms 3.2 Know the basic components of plant cells and their functions 3.3 Recognize the various cells and tissues that make up plant leaves, stems and roots 3.4 Describe the functional roles of the major plant organs (stems, leaves and roots) 3.5 Describe the basic life cycles of plants (angiosperms and gymnosperms) and patterns of development (primary and secondary growth).
<b>Course Outcome 4</b>	<b>Learning Objectives for Course Outcome 4</b>	
Horticulture Plant Identification	4.1 Learning ten annual bedding plants 4.2 Learning ten species of perennial plants 4.3 Learning ten shrub species 4.4 Learning ten tree species 4.5 Selecting exotic non-invasive horticultural species and protecting the environment	
<b>Course Outcome 5</b>	<b>Learning Objectives for Course Outcome 5</b>	
Turf Management	5.1 Different types of turf (grass species) and uses 5.2 Fertilizers and pesticide use in turf management 5.3 Tools, machinery and their uses	

		5.4 Site preparation for seeding and sodding
	<b>Course Outcome 6</b>	<b>Learning Objectives for Course Outcome 6</b>
	Aesthetic Landscaping and Propagation	6.1 Design a landscape plan for a Provincial Park gatehouse 6.2 Visit to local greenhouses both commercial and municipal 6.3 Grow edible seed plants 6.4 Propagate plants from cuttings
<b>Evaluation Process and Grading System:</b>	<b>Evaluation Type</b>	<b>Evaluation Weight</b>
	Assignments	30%
	Labs	20%
	Quizzes	40%
	Tests	10%
<b>Date:</b>	July 13, 2023	
<b>Addendum:</b>	Please refer to the course outline addendum on the Learning Management System for further information.	