

Master Gardener Program

Plant Identification and Use

This course is an introduction to over 100 plants grown in Canadian gardens focusing on their identification and use. It includes a guide to botanical nomenclature, the hierarchy of the plant kingdom and plant morphology. Students will learn the use of a simple dichotomous key to aid in plant identification.

Course Topics

- Nomenclature
- Plant Anatomy Stems
- Leaves
- Buds
- Roots
- Flowers
- Fruit
- Special Note about Gymnosperms
- Seeds

Plant Groups Studied

- Annuals
- Perennials
- Deciduous Trees
- Coniferous Trees
- Flowering Shrubs
- Coniferous Shrubs
- Broadleaf Evergreen Shrubs
- Vines
- Groundcovers
- Spring Bulbs

The Science of Gardening

Plants survive within ecosystems that are part of the larger environment. Our aim as gardeners is to promote the growth and flourishing of our garden plants so that we can enjoy their beauty or their taste or both. We do this through selection of the appropriate plants for the site, good soil management and careful manipulation of their growth. This course will give you a comprehensive understanding of a plant's basic functions, its interaction with its surroundings and its responses to changes in its environment. It will lead to an understanding of the scientific basis for many of the principles and practices of gardening.

Course Topics

The Soil System

- Classes of soils found in Atlantic Canada
- Chemical and physical properties
- Organic Matter
- Soil Improvement

Plant Physiology

- Photosynthesis
- Growth and development
- Nutrient absorption and transport
- Respiration
- Stress

Plant Nutrition

- Macronutrients and micronutrients
- Fertilizers
- Nutrient availability
- Detecting nutrient deficiencies

Plant Propagation

- Collection and germination of seed
- Micro propagation
- Vegetative propagation
- Maintaining the Garden

Maintaining the Garden

This course will give you the upper hand in getting the garden that you want. The course examines common gardening practices - looking at what they are, how they are done and most importantly, why. It will help you develop environmentally sound strategies to manage weeds, insects and diseases in your garden.

Course Topics

Gardening Techniques and Tools

- Gardening Tools
- Landscape Installation Techniques
- Landscape Maintenance Techniques

Weeds and Weed Control

- Weed Identification and Control
- Weed Life Cycles and Reproductive Strategies
- Principles of Weed Control
- Methods of Weed Control

Plant Health

- Diseases
- Plant Disease in History
- Diseases Defined
- Steps of disease diagnosis
- Symptoms, signs, syndromes
- Disease development
- Control of diseases

Pests

- Pests in the Garden
- Control measures
- Slugs and Snails
- Insect Pests
- Insect Orders Important to the Gardener
- Common Non-insect Pests of the Garden
- Types of Insect Injury
- Benefits and Value of Insects
- Minimum-chemical Pest Control

Pruning

- Reasons for pruning
- Care of Pruning tools
- Pruning techniques

- Pruning tips for each plant group

The Art of Gardening

It has been said that a work of art should "interest the eye, excite the brain, move the mind to reflection, and involve the heart"... (and ideally)..... "come at us from an unexpected angle and stop us short in wonder." (Anne Wareham, in "The Garden" August 2002).

The Art of Gardening is intended to merge your gardening experience with the knowledge you have acquired throughout this program. To begin the journey into areas of specialist expertise, this course explores the most classic of garden compositions - container plantings. We will then learn about that green backdrop to garden art, the lawn. Lastly, we examine the cultivation of 'food from the heart' - fruits and vegetables. The course will teach you how to successfully implement these options to create the specialized landscape that reflects your interests.

Course Topics

Container Gardening

- The basics of container gardens
- Types of container gardens

Lawn Care

- Establishing a lawn

Fruit Gardens

- Tree Fruits in the Home Garden
- Small Fruits in the Home Garden
- Planning the small fruit garden
- Selected small fruits; strawberries, brambles and grapes

Vegetable Gardens

- Basics of Vegetable Gardening
- Selected vegetable crops