

# Horticulture Technology: Diploma

<b>Faculty of Science and Horticulture</b>	kpu.ca/science
<b>School of Horticulture</b>	kpu.ca/hort
<b>Implementation Date</b>	01-Sep-2011
<b>Start Date(s)</b>	September January
<b>Admission Type</b>	Open admission
<b>Enrolment Type</b>	Open enrolment
<b>Program Type</b>	Undergraduate
<b>Credential Granted</b>	Diploma
<b>Offered At</b>	Langley
<b>Format</b>	Full-time Part-time
<b>How to Apply</b>	www.kpu.ca/admission

## DESCRIPTION

Horticulture is the branch of agriculture that focuses on the production and care of fruit, vegetables, and ornamental plants. KPU's two year Horticulture Technology Diploma specializations focus on high value crops like greenhouse vegetables, on landscape design and maintenance, and on turf management. These three areas are among the most technology-intensive and knowledge-based areas of horticulture practice and have a great impact on the quality of life for our urban and suburban society.

The program curriculum and the success of KPU's diploma graduates have established the Horticulture Technology Diploma Specializations as a highly valued credential in the workplace. The diploma program uniquely combines theory and technique with the practice of horticulture. Students learn how to use the tools, equipment, and technologies that are an everyday part of industry. The program also provides students with a foundation in horticulture science. Students develop an understanding of the environmental requirements for optimum plant growth and the limits of technology. Best practice and sustainability are key learning outcomes.

All students must undertake a 14-week work experience, usually completed between first and second year. This provides a great opportunity for students to apply their new skills and identify where their careers lie after completing the diploma.

## Specializations:

The Diploma in Horticulture requires students to choose one of three specializations:

- Landscape Horticulture Systems (formerly Landscape Design and Installation)
- Sustainable Crop Production (formerly Greenhouse and Nursery Production)
- Turf Management

## LANDSCAPE HORTICULTURE SYSTEMS

This specialization delivers basic horticulture knowledge as well as practical hands-on experience. Students resolve local landscape garden problems through landscape design classes. In landscape construction they learn by building features that

become part of the campus landscape. A program strength is tree care (arboriculture) where students learn pruning, planting, and tree management problem-solving skills in our urban forests.

Graduates are working for landscape companies of all types and sizes. Many are successfully running their own landscape firms. Graduates have also established successful careers working for the parks departments in our cities.

## SUSTAINABLE CROP PRODUCTION

The greenhouse and nursery sector of horticulture in BC has consistently provided rewarding employment opportunities. There is always a demand for knowledgeable and skilled individuals who enjoy working with people and plants. Job opportunities exist in BC and abroad. This diploma specialization provides students with the knowledge and skills needed to work successfully in the greenhouse production of vegetables, flower crops, and field and container production of ornamental plants. Graduates may be employed as assistant growers or growers in wholesale and retail nurseries, commercial greenhouse operations, garden centres, or as technical representatives in supply companies. Research and sales also compliment these diverse career choices.

## TURF MANAGEMENT

Turf management students participate in provincial and national industry conferences, establishing networks of industry and alumni contacts that support their career development. On campus, students play a role in the management and maintenance of the turf field lab with golf greens, tees, fairways, home lawns, and park style lawn areas.

Graduates are managing golf courses in all parts of the province. Many have successful careers with municipal parks departments managing sports fields. In addition to turf management, the program includes tree care (arboriculture) and a number of turf management graduates are successful arborists.

## Transfer to a Degree

### KPU BACHELOR OF HORTICULTURE SCIENCE

Graduates of a diploma program can pursue KPU's Bachelor of Horticulture Science degree majors. Students have the choice of an Urban Ecosystems major or a Plant Health major. Refer to the Horticulture Science degree section of the calendar for details. Students can combine their diploma education with the enhanced horticulture science knowledge of the degree and earn two credentials. Those who wish to pursue this option should meet with the Faculty of Science and Horticulture Degree Advisor to discuss transfer to this unique School of Horticulture degree program.

### KPU BACHELOR OF BUSINESS ADMINISTRATION

A successful career progression in horticulture often leads to a management role. While the diploma programs include a solid foundation in business skills, graduates are eligible to transfer into the third year of KPU's Bachelor of Business Administration (in Entrepreneurial Leadership, Human Resources Management, or Marketing Management). Some additional course work in Accounting, Computer Applications, English, Microeconomics, Statistics, and Marketing is required to complete the transfer. Students can combine diploma-level education with enhanced business skill and earn two credentials (Diploma and Degree) in a 4.5 year course of study. Students who wish to pursue this option should meet with the Faculty of Science and Horticulture Degree Advisor to discuss course substitutions that would facilitate transfer to the School of Business degree program.

## STUDENT PROFILE

Students who wish to contribute to environmental and community well-being, engage in creative activities, own and operate their own business, or engage in hands-on work will enjoy horticulture.

Many students enter the horticulture diploma to upgrade their skills or facilitate a career change. Faculty and staff are supportive and sensitive to the issues faced by students who embark on a post-secondary program after a significant period away from formal education.

Individuals with allergies to dust, pollen or plant products, or specific chemicals should be aware of the potential impact of practicing horticulture on their health. Moderate physical fitness and a healthy back are generally required for a successful career in horticulture.

## CAREER OPPORTUNITIES

Refer to the descriptions of the three specializations for information on career opportunities in the program description section above.

## PROGRAM ADMISSION REQUIREMENTS

General university admission requirements apply to this program including the undergraduate-level English Proficiency Requirement.

Students wishing to complete the program without having to undertake any preparatory courses must enter with English 12 with a grade of C+ (or equivalents) and Mathematics 11 (Applications or Principles) with a grade of C (or equivalent). Students are encouraged to make an appointment with an Academic Advisor to plan course selections accordingly.

## PROGRAM REQUIREMENTS

### Landscape Horticulture Systems Specialization

Students pursuing a Horticulture Technology Diploma with a Landscape Horticulture Systems specialization must complete at least 63 credits. Students should be familiar with the basic computer applications of word processing and spread sheets. If students require upgrading, they should take CBSY 1105.

#### YEAR 1

##### Fall Semester

###### All of:

HORT 1102	Botany for Horticulture	3 credits
HORT 1118	Basic Machinery Operation and Maintenance	3 credits
HORT 1124	Landscape Gardening Methods	3 credits
HORT 1155	Introduction To Plant Materials	3 credits

##### Spring Semester

###### All of:

CMNS 1140	Introduction to Professional Communication	3 credits
HORT 1104	Soils and Growing Media	3 credits
HORT 1105	BC Pesticide Applicator Certification	1 credit
HORT 1217	Foundations of Plant Health	3 credits
HORT 1240	Arboriculture I	3 credits

##### Fall or Spring Semester

###### And:

HORT 1110	Introduction to Sustainable Horticulture	3 credits
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###### Plus one of:

HORT 1230	Sustainable Turf Management	3 credits
HORT 1261	Plant Propagation	3 credits

##### Summer Semester

HORT 2302	Horticulture Work Experience	1 credit
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#### YEAR 2

##### Fall Semester

###### All of:

BUSI 1209	Business Management in Horticulture	3 credits
HORT 2306	Work Experience Report	1 credit
HORT 2308	Landscape Pest Management	3 credits
HORT 2327	Sustainable Landscape Design I	3 credits
HORT 2355	Plant Identification 3	3 credits

###### Plus one of:

HORT 2334	Irrigation, Drainage and Lighting	3 credits
HORT 2473	Greenhouse Environments	3 credits

##### Spring Semester

###### All of:

BUSI 1205	Supervisory Skills	3 credits
HORT 2412	Landscape Estimating and Contract Administration	3 credits
HORT 2426	Landscape Construction	3 credits

###### Plus two of:

HORT 2427	Sustainable Landscape Design II	3 credits
HORT 2463	Nursery Production	3 credits

HORT 2442	Arboriculture II	3 credits
HORT 2490	Organic Greenhouse Crop Production	3 credits

## Sustainable Crop Production Specialization

Students pursuing a Horticulture Technology Diploma with a Sustainable Crop Production specialization must complete at least 63 credits. Students should be familiar with the basic computer applications of word processing and spread sheets. If students require upgrading, they should take CBSY 1105.

### YEAR 1

#### Fall Semester

##### All of:

HORT 1102	Botany for Horticulture	3 credits
HORT 1110	Introduction to Sustainable Horticulture	3 credits
HORT 1118	Basic Machinery Operation and Maintenance	3 credits
HORT 1155	Introduction To Plant Materials	3 credits
HORT 1193	Crop Production Practices	3 credits

#### Spring Semester

##### All of:

CMNS 1140	Introduction to Professional Communication	3 credits
HORT 1104	Soils and Growing Media	3 credits
HORT 1105	BC Pesticide Applicator Certification	1 credit
HORT 1217	Foundations of Plant Health	3 credits
HORT 1293	Crop Production Operations	3 credits

##### Plus one of:

HORT 1240	Arboriculture I	3 credits
HORT 1261	Plant Propagation	3 credits

#### Summer Semester

##### And:

HORT 2302	Horticulture Work Experience	1 credit
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### YEAR 2

#### Fall Semester

##### All of:

BUSI 1209	Business Management in Horticulture	3 credits
HORT 2306	Work Experience Report	1 credit
HORT 2375	Production Facilities and Equipment	3 credits
HORT 2378	Production Horticulture Pests	3 credits

HORT 2393	Crop Production Performance	3 credits
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##### Plus one of:

HORT 2334	Irrigation, Drainage and Lighting	3 credits
HORT 2473	Greenhouse Environments	3 credits

#### Spring Semester

##### All of:

BUSI 1205	Supervisory Skills	3 credits
HORT 2477	Production Horticulture Management	3 credits
HORT 2490	Organic Greenhouse Crop Production	3 credits
HORT 2493	Crop Production Development	3 credits

##### Plus one of:

HORT 2442	Arboriculture II	3 credits
HORT 2463	Nursery Production	3 credits

## Turf Management Specialization

Students pursuing a Horticulture Technology Diploma with a Turf Management specialization must complete at least 63 credits. Students should be familiar with the basic computer applications of word processing and spread sheets. If students require upgrading, they should take CBSY 1105.

### YEAR 1

#### Fall Semester

##### All of:

HORT 1102	Botany for Horticulture	3 credits
HORT 1118	Basic Machinery Operation and Maintenance	3 credits
HORT 1132	Turf Maintenance Operations	3 credits
HORT 1155	Introduction To Plant Materials	3 credits
HORT 1230	Sustainable Turf Management	3 credits

#### Spring Semester

##### All of:

CMNS 1140	Introduction to Professional Communication	3 credits
HORT 1104	Soils and Growing Media	3 credits
HORT 1105	BC Pesticide Applicator Certification	1 credit
HORT 1217	Foundations of Plant Health	3 credits
HORT 1232	Sports Turf Management Practices	3 credits
HORT 1240	Arboriculture I	3 credits

## Summer Semester

### And:

HORT 2302 Horticulture Work Experience 1 credit

Upon successful completion of this program and the respective specialization, students are eligible to receive a **Diploma in Horticulture Technology Turf Management Specialization.**

## YEAR 2

### Fall Semester

#### All of:

BUSI 1209	Business Management in Horticulture	3 credits
HORT 2306	Work Experience Report	1 credit
HORT 2330	Turfgrass and Environmental Stress	3 credits
HORT 2332	Environmental Turf Management	3 credits
HORT 2333	Turfgrass Pest Management	3 credits
HORT 2334	Irrigation, Drainage and Lighting	3 credits

### Spring Semester

#### All of:

BUSI 1205	Supervisory Skills	3 credits
HORT 2432	Grounds Machinery Maintenance	3 credits
HORT 2436	Golf Course Management	3 credits
HORT 2437	Golf Course Irrigation Systems: Design and Operations	3 credits

#### Plus one elective (3 credits) selected from:

ACCT 1230	Business Statistics *	3 credits
ACCT 2293	Accelerated Introductory Financial Accounting *	3 credits
CBSY 1105	Computer Business Applications *	3 credits
ECON 1150	Principles of Microeconomics *	3 credits
HORT 2426	Landscape Construction	3 credits
HORT 2442	Arboriculture II	3 credits
MRKT 1199	Introduction to Marketing *	3 credits

\* Recommended for students bridging to a Bachelor of Business Administration degree program.

## CREDENTIAL AWARDED

Upon successful completion of this program and the respective specialization, students are eligible to receive a **Diploma in Horticulture Technology Landscape Horticulture Systems Specialization.**

Upon successful completion of this program and the respective specialization, students are eligible to receive a **Diploma in Horticulture Technology Sustainable Crop Production Specialization.**