

Horticulture Technology: Diploma

Faculty of Science and Horticulture	kpu.ca/science
School of Horticulture	kpu.ca/hort
Implementation Date	01-Sep-2011
Start Date(s)	September January
Admission Type	Open admission
Enrolment Type	Open enrolment
Program Type	Undergraduate
Credential Granted	Diploma
Offered At	Langley
Format	Full-time Part-time
How to Apply	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 (four semesters) horticulture diplomas focus on the 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. They are also the areas of horticulture that have the greatest 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 as a highly valued credential in the workplace. The diploma program uniquely combines horticultural theory and technique with the business of horticulture. Students learn how to use the tools, equipment and technologies that are part of industry practice. The program also provides students with a foundation in the scientific knowledge that is the basis of horticulture practice. As a result students develop an understanding of the environmental requirements for optimum plant growth and of the limits of technology and technique. Best practice and sustainability are key outcomes in many courses.

All students engage in a 14 week work experience, usually completed between first and second year. The requirements of the work experience include an assessment of the application of horticulture practices in industry and the community.

Specializations:

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

- Greenhouse and Nursery Production
- Landscape Design and Installation
- Turf Management

GREENHOUSE AND NURSERY PRODUCTION

The greenhouse and nursery sector of the horticulture industry 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. The demand for qualified greenhouse/nursery technologists is

high and job opportunities exist in BC and abroad. This program provides students with the knowledge and skills needed to work successfully in the greenhouse production of vegetable, or flower crops, or 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 and as technical representatives in supply companies.

LANDSCAPE DESIGN AND INSTALLATION

Each year students resolve a few local homeowners landscape garden problems through the landscape design classes. In landscape construction they learn by building features that become part of the campus landscape. A program strength of the landscape diploma is the tree care (arboriculture) component where students learn pruning, tree care, and how to solve tree management problems in our urban forest.

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

TURF MANAGEMENT

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

Turf management 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 landscape construction and tree care (arboriculture). 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 the KPU's Bachelor of Horticulture Science degree. Students have the choice of a major in Urban Ecosystems or a major in Plant Health. Refer to the Horticulture Science degree section of the calendar for details. Students can combine their diploma education with enhanced horticulture science knowledge and earn two credentials. Those who wish to pursue this option should meet with their program coordinator to discuss course substitutions that would facilitate transfer to this novel 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, horticulture diploma 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, 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 their program coordinator 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 businesses, or engage in hands-on work will enjoy horticulture.

Many students enter the horticulture to upgrade their skills or to 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 school, college, or university.

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 these horticulture disciplines.

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+ 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

Greenhouse and Nursery Production Specialization

Student pursuing a Diploma in Horticulture with a Greenhouse and Nursery Production specialization must complete at least 63 credits including:

YEAR 1

All of:

Fall – Semester 1

CBSY 1105	Introductory Computer Applications	3 credits
HORT 1102	Botany for Horticulture	3 credits
HORT 1116	Introductory Equipment Maintenance	2 credits
HORT 1155	Introduction to Plant Identification	3 credits
HORT 1171	Production Practices – Fall	2 credits
HORT 2472	Forest Crop Production	2 credits

Spring – Semester 2

CMNS 1140	Introduction to Professional Communication	3 credits
HORT 1101	Pesticide Applicator/Dispenser Certification	0.5 credits
HORT 1104	Soils and Growing Media	3 credits
HORT 1217	Foundations of Plant Health	3 credits
HORT 1246	Plant ID for Production	1.5 credits
HORT 1261	Plant Propagation	3 credits
HORT 1271	Production Practices – Spring	2 credits

Summer Semester

HORT 2300	Horticultural Work Experience	2 credits
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YEAR 2

All of:

Fall – Semester 3

BUSI 1209	Business Management in Horticulture	3 credits
HORT 2371	Fall Floriculture	3 credits
HORT 2375	Production Facilities and Equipment	3 credits
HORT 2378	Production Horticulture Pests	3 credits
HORT 2473	Greenhouse Environments	3 credits

Spring – Semester 4

BUSI 1205	Supervisory Skills	3 credits
HORT 2372	Greenhouse Vegetable Production	3 credits
HORT 2463	Nursery Production	3 credits
HORT 2477	Production Horticulture Management	3 credits
HORT 2479	Spring Floriculture	3 credits

ELECTIVES

Optional:

HORT 1110	Introduction to Sustainable Horticulture	3 credits
HORT 2490	Organic Greenhouse Crop Production	3 credits

Landscape Design and Installation Specialization

Student pursuing a Diploma in Horticulture with a Landscape Design and Installation specialization must complete at least 65 credits including:

YEAR 1

All of:

Fall – Semester 1

CBSY 1105	Introductory Computer Applications	3 credits
HORT 1102	Botany for Horticulture	3 credits
HORT 1116	Introductory Equipment Maintenance	2 credits
HORT 1122	Introduction to Landscape Practices	2 credits
HORT 1155	Intro to Plant Identification	3 credits
HORT 1230	Sustainable Turf Management	3 credits

Spring – Semester 2

CMNS 1140	Introduction to Professional Communication	3 credits
HORT 1101	Pesticide Applicator/Dispenser Certification	0.5 credits
HORT 1104	Soils and Growing Media	3 credits
HORT 1217	Foundations of Plant Health	3 credits
HORT 1224	Landscape Drafting	3 credits
HORT 1240	Arboriculture I	3 credits
HORT 1255	Plant Identification II	1.5 credits

Summer Semester

HORT 2300	Horticultural Work Experience	2 credits
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YEAR 2

All of:

Fall – Semester 3

BUSI 1209	Business Management in Horticulture	3 credits
HORT 2308	Landscape Pest Management	3 credits
HORT 2320	Landscape Design I	3 credits
HORT 2334	Irrigation, Drainage and Lighting	3 credits
HORT 2355	Plant Identification 3	3 credits

Spring – Semester 4

BUSI 1205	Supervisory Skills	3 credits
HORT 2412	Landscape Estimating and Contract Administration	3 credits
HORT 2420	Landscape Design II	3 credits
HORT 2426	Landscape Construction	3 credits
HORT 2442	Arboriculture II	3 credits

ELECTIVES

Optional:

HORT 1110	Introduction to Sustainable Horticulture	3 credits
HORT 1119	Landscape and the Environment I	3 credits

Turf Management Specialization

Student pursuing a Diploma in Horticulture with a Turf Management specialization must complete 63.5 credits including:

YEAR 1

All of:

Fall – Semester 1

CBSY 1105	Introductory Computer Applications	3 credits
HORT 1102	Botany for Horticulture	3 credits
HORT 1116	Introductory Equipment Maintenance	2 credits
HORT 1134	Turf Maintenance Operations	2 credits
HORT 1155	Intro to Plant Identification	3 credits
HORT 1230	Sustainable Turf Management	3 credits

Spring – Semester 2

CMNS 1140	Business and Technical Communication	3 credits
HORT 1101	Pesticide Applicator/Dispenser Certification	0.5 credits
HORT 1104	Soils and Growing Media	3 credits
HORT 1217	Foundations of Plant Health	3 credits
HORT 1240	Arboriculture I	3 credits
HORT 1255	Plant Identification II	1.5 credits
HORT 2304	Grounds Machinery	2 credits

Summer Semester

HORT 2300	Horticultural Work Experience	2 credits
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YEAR 2

All of:

Fall – Semester 3

BUSI 1209	Business Management in Horticulture	3 credits
HORT 2330	Turfgrass and Environmental Stress	3 credits
HORT 2333	Turfgrass Pest Management	3 credits
HORT 2334	Irrigation, Drainage and Lighting	3 credits
HORT 2335	Sports Turf Management Practices	2.5 credits

Spring – Semester 4

BUSI 1205	Supervisory Skills	3 credits
HORT 2426	Landscape Construction	3 credits
HORT 2436	Golf Course Management	3 credits
HORT 2437	Golf Course Irrigation Systems: Design and Operations	3 credits
HORT 2442	Arboriculture II	3 credits

CREDENTIAL AWARDED

Upon successful completion of this program, students are eligible to receive a **Diploma in Horticulture Technology**.