

Plant Health: Bachelor of Horticulture Science Major

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	Selective entry
Enrolment Type	Open enrolment
Program Type	Undergraduate
Credential Granted	Baccalaureate Degree
Offered At	Langley
Format	Full-time Part-time
How to Apply	www.kpu.ca/admission

DESCRIPTION

This Bachelor of Horticulture Science Major is an interdisciplinary program that combines horticulture, business, mathematics, biology, chemistry, and student-selected general education requirements. Students will combine the science and practice of horticulture to resolve community, industry, and research related problems. Innovation and creative thinking are important essential skills that students gain through their involvement in research and course specific projects. A major program theme is the relationship between horticulture, our communities and our environment.

The Bachelor of Horticulture Science program has the following strengths:

- Customized education through the selection of electives that support learner educational goals
- Emphasis on the economic, environmental, and social components of sustainability
- Strong connections with horticulture industry and community groups
- Development of essential skills such as teamwork, creative thinking, problem solving, and communication
- Capstone research courses which include a business plan and the application of new skills to a community based issue
- Required work experience in the first two years

Students address the impacts of plant health issues on the local, regional, and international practice of horticulture. The recognition of plant health, the diagnosis of poor plant performance, and the analysis of plant health programs form the core educational goals. Students explore the impacts of weeds, pests, and diseases as well as the implementation of pest management tactics on the environment. A unique feature of the program is the recognition of horticulture as part international trade and the impact of pests and diseases on the movement of plants and plant products around the globe.

Students may have the opportunity to engage in international studies.

STUDENT PROFILE

Individuals interested in the impacts of plant health and the management of plant health on the horticulture industry and on our own communities are encouraged to apply. This program will appeal to students who are interested in an applied science program where they will both analyze problems and implement solutions that enhance and protect our food amenity and recreational needs. Students interested in the effects of varied societal perspectives on public policy and the implementation of sustainable practices to food and amenity crops will find this program of value.

CAREER OPPORTUNITIES

Upon completing this Bachelor of Horticulture Science Major, graduates will be qualified to compete for:

- Technical positions in the Environmental Sector
- Urban Horticulturists
- Growers in Production Horticulture Operations
- Plant Protection Inspectors
- Pest Management Specialists or Managers in public or private organizations
- Crop Consultants
- Technical Representatives for Horticulture or Agriculture Supply Companies
- Parks Managers
- Graduate studies in Horticulture or related fields (subject to specific graduate school admission requirements)

PROGRAM ADMISSION REQUIREMENTS

In addition to KPU's General university admission requirements, including the undergraduate-level English Proficiency Requirement, the following program admission requirements apply:

- English 12 with a B grade (or equivalent)
- Principles of Math 11 with a C grade (or equivalent)
- Chemistry 11 with a C+ grade (or equivalent)

Students who have not completed Principles of Math 12 or Precalculus 12 (or equivalent) with C+ or better will need to take MATH 1117 as part of the Bachelor of Horticulture Science Major in Plant Health program.

Note: KPU Horticulture Technology Diploma students may apply completed equivalent coursework towards the program requirements that are outlined below.

PROGRAM REQUIREMENTS

The Bachelor of Horticulture Science, Major in Plant Health consists of 122 credits of course work including 33 HORT 3000 or 4000 credits.

Plant Health Major

YEAR 1

All of:

CBSY 1105	Introductory Computer Applications	3 credits
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ENGL 1100	Introduction to University Writing	3 credits
HORT 1102	Botany for Horticulture	3 credits
HORT 1104	Soils and Growing Media	3 credits
HORT 1110	Introduction to Sustainable Horticulture	3 credits
HORT 1155	Introduction to Plant Identification	3 credits
HORT 1217	Foundations of Plant Health	3 credits
HORT 2302	Horticulture Work Experience	1 credit

Plus:

9 credits of HORT electives at 1000 or 2000 level, see list below 9 credits

YEAR 2

All of:

BIOL 1110	Introductory Biology I	4 credits
BUSI 1205	Supervisory Skills	3 credits
BUSI 1209	Business Management in Horticulture	3 credits
ENVI 1106	Environmental Chemistry I	4 credits
HORT 2306	Work Experience Report	1 credit

Plus one of:

HORT 2308	Landscape Pest Management	3 credits
HORT 2333	Turfgrass Pest Management	3 credits
HORT 2378	Production Horticulture Pests	3 credits

Plus:

12 credits of HORT electives at 1000 or 2000 level 12 credits

YEAR 3

All of:

BIOL 1210	Introductory Biology II	4 credits
MATH 1115	Statistics I	3 credits
HORT 3310	Entomology	3 credits
HORT 3320	Plant Pathology	3 credits
HORT 3330	Biological Control in Pest Management	3 credits
HORT 3360	Scouting, Monitoring, and Assessment of Pests	3 credits

Plus:

6 credits of HORT electives at 2000 level or above 6 credits

Plus:

6 credits of Breadth electives 6 credits

YEAR 4

All of:

HORT 4340	Pest Management	3 credits
HORT 4350	Environmental Effects of Plant Health Management	3 credits
HORT 4370	National and Global Regulatory Issues	3 credits
HORT 4440	Vegetation Management	3 credits
HORT 4480	Society and Horticulture	3 credits
HORT 4810	Applied Research Project 1	3 credits
HORT 4820	Applied Research Project 2	3 credits
PHIL 3033	Business Ethics	3 credits

Plus:

6 credits of Breadth electives 6 credits

HORT Electives

HORT electives 1100 or higher must equal a total of 27 credits, 9 credits of which are at the 2000 level. These courses can be selected from the list below.

HORT 1118	Basic Machinery Operation and Maintenance	3 credits
HORT 1124	Landscape Gardening Methods	3 credits
HORT 1132	Turf Maintenance Operations	3 credits
HORT 1172	Forest Seedling Production	2 credits
HORT 1193	Crop Production Practices	3 credits
HORT 1224	Landscape Drafting	3 credits
HORT 1230	Sustainable Turf Management	3 credits
HORT 1232	Sports Turf Management Practices	3 credits
HORT 1240	Arboriculture I	3 credits
HORT 1246	Plant ID for Production	1.5 credits
HORT 1255	Plant Identification 2	1.5 credits
HORT 1261	Plant Propagation	3 credits
HORT 1293	Crop Production Operations	3 credits
HORT 2327	Sustainable Landscape Design I	3 credits
HORT 2330	Turfgrass and Environmental Stress	3 credits
HORT 2334	Irrigation, Drainage and Lighting	3 credits
HORT 2355	Plant Identification 3	3 credits

HORT 2375	Production Facilities and Equipment	3 credits
HORT 2393	Crop Production Performance	3 credits
HORT 2412	Landscape Estimating and Contract Administration	3 credits
HORT 2426	Landscape Construction	3 credits
HORT 2427	Sustainable Landscape Design II	3 credits
HORT 2432	Grounds Machinery Maintenance	3 credits
HORT 2436	Golf Course Management	3 credits
HORT 2437	Golf Course Irrigation Systems, Designs, and Operations	3 credits
HORT 2442	Arboriculture II	3 credits
HORT 2463	Nursery Production	3 credits
HORT 2473	Greenhouse Environment and its Control	3 credits
HORT 2477	Production Management	3 credits
HORT 2479	Spring Floriculture	3 credits
HORT 2490	Organic Greenhouse Crop Production	3 credits
HORT 2493	Crop Production Development	3 credits

Breadth Electives

Breadth electives (12 credits) may come from fields or courses not regarded as horticulture courses. CMNS 1140 can be used as a breadth course.

CREDENTIAL AWARDED

Upon successful completion of this program, students are eligible to receive a **Bachelor of Horticulture Science, Major in Plant Health**.