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-2015
Start Date(s)	September January May
Intake Type	Open intake
Instructional Cycle	Semester-based
Program Type	Undergraduate
Credential Granted	Baccalaureate Degree
Offered At	Langley
Format	Full-time Part-time
How to Apply	www.kpu.ca/admission

DESCRIPTION

The Plant Health Major is an interdisciplinary program that combines plant pathology, entomology, and horticultural practices as part of a holistic approach to plant health protection. The program emphasizes sustainable integrated pest management (IPM) practices including cultural control, biological control, and surveys/scouting, as tools supporting overall management of pests such as insects, weeds and organisms that cause plant disease.

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 key feature of the program is the recognition of horticulture as part of international trade and the impact of moving plants, plant products and their pests or diseases globally.

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 the application of new skills to a community based issue
- Required work experience

Students may have the opportunity to engage in international studies.

STUDENT PROFILE

Students interested in the impacts of plant health, its management, and the influence of plant protection regulations on the horticulture industry or our broader community, are encouraged to apply. The program will appeal to students who want to enroll in an applied science degree, where they can 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 crop production will find this program of value.

CAREER OPPORTUNITIES

Our graduates develop skill necessary for employment in the following area:

- Technical positions in the Environmental Sector
- Urban Horticulturists
- Growers in Production Horticulture Operations
- Importers and exporters of plants or plant-based commodities
- 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)

ADMISSION REQUIREMENTS

Students pursuing a major in Plant Health must be admitted to the Faculty of Science & Horticulture.

DECLARATION REQUIREMENTS

Students intending to graduate with this Faculty of Science and Horticulture degree must declare the credential by the time they complete 60 credits of undergraduate coursework. At the time of declaration, the student must satisfy all of the following requirements:

- In good academic standing with the University
- Completion of a minimum of 24 credits of undergraduate coursework, including the following:
  - 3 credits of ENGL at the 1100 level or higher

CURRICULAR REQUIREMENTS

A minimum of 122 credits at the 1100-level or higher, including:

- A minimum of 36 credits at the 3000-level or higher, including 6 credits of research courses at the 4000-level
- A minimum of 15 credits of Breadth electives chosen from subject areas other than HORT, including at least 3 credits at the 3000- or 4000-level

Plant Health Major

YEAR 1

All of:

CBSY 1105	Introductory Computer Applications	3 credits
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

Plus:

9 credits of HORT electives at the 1000- or 2000-level	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 2302	Horticulture Work Experience	1 credit
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 the 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 the 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

Plus:

9 credits of Breadth electives, with at least 3 credits at the 3000-level or above	9 credits

CREDENTIAL AWARDED

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