

BACHELOR OF HORTICULTURE SCIENCE, MAJOR IN URBAN ECOSYSTEMS

At a Glance

Faculty

www.kpu.ca/science (<http://www.kpu.ca/science/>)

Area of Study:

www.kpu.ca/hort (<http://www.kpu.ca/hort/>)

Academic Level:

Undergraduate

Credential Granted:

Baccalaureate Degree

Start Date:

Fall (September)

Spring (January)

Summer (May)

Intake Type:

- Open

Minimum Credits Required:

121

Curriculum Effective Date:

01-Sep-2016

Intakes for this program have been postponed indefinitely, effective Spring (January) 2023.

Description

The Bachelor of Horticulture Science Urban Ecosystems Major is the only undergraduate degree in North America dedicated to the study of urban ecosystems. At KPU, the Urban Ecosystems Major is an interdisciplinary program that combines horticulture, ecology, design, biology, chemistry, mathematics, business, and student-selected electives from the breadth of courses offered throughout KPU. Students synthesize the science and practice of horticulture to resolve community, industry, and research-related problems in urban environments. Innovation and creative critical thinking are important essential skills that students gain through applied research projects.

The Urban Ecosystems program puts theory into practice through student-led projects. We are testing and adapting ideas about urban ecosystems in real time, on the KPU Langley Campus through protection, design, and management of a living landscape. We have a 550 m² dedicated Roof Ecosystem Research Lab where we test plants, grow food, and manage a permanent grassland habitat. On the ground, we have a 65-metre rain garden and a vertical living wall rain garden. We are actively repairing, re-indigenizing and managing 1.5 hectares of floodplain habitat alongside Logan Creek, which flows through the campus.

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 business planning and the application of new skills to a community based issue
- Required work experience in horticulture

Students may have the opportunity to engage in international studies.

Requirements

Admission Requirements

Students pursuing a Major in Urban Ecosystems must be admitted to the Faculty of Science & Horticulture (<https://calendar.kpu.ca/programs-az/science-horticulture/admission-requirements/>).

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 121 credits from courses at the 1100 level or higher, including:

- A minimum of 39 credits from courses at the 3000 level or higher, including 6 credits from research courses at the 4000 level
- A minimum of 15 credits of Breadth electives chosen from fields or courses that are neither HORT nor prescribed within the Bachelor of Horticulture Science Urban Ecosystem Major, including at least 3 credits from courses at the 3000 or 4000 level

Urban Ecosystems Major

Course	Title	Credits
Year 1		
ENGL 1100	Introduction to University Writing	3
HORT 1102	Botany for Horticulture	3
HORT 1104	Soils and Growing Media	3
HORT 1110	Introduction To Sustainable Horticulture	3
HORT 1155	Introduction To Plant Materials	3
HORT 1217	Foundations of Plant Health	3
CBSY 1105	Computer Business Applications	3
or CBSY 1110	or Business Problem Solving with Spreadsheets	
Select 9 credits of HORT electives at the 1100 or 2000 level		9
Credits		30
Year 2		
BIOL 1110	Introductory Biology I	4

ENVI 1106	Environmental Chemistry I	4
HORT 2302	Horticulture Work Experience	1
HORT 2306	Work Experience Report	1
Select one of the following:		3
BUSI 1205	Supervisory Skills	
BUSI 1215	Organizational Behaviour	
BUSI 1250	Human Resources Management I	
Select one of the following:		3
ACCT 1110	Introductory Financial Accounting I	
BUSI 1209	Business Management in Horticulture	
BUSI 1210	Essentials of Management	
Select one of the following:		3
HORT 2308	Landscape Pest Management	
HORT 2333	Turfgrass Pest Management	
HORT 2378	Production Horticulture Pests	
Select 12 credits of HORT electives at the 1100 or 2000 level		12
Credits		31
Year 3		
HORT 3210	Applied Urban Ecosystems	3
HORT 3230	Urban Watershed Planning	3
HORT 3250	Monitoring, Inventory, and Assessment of Plant Communities	3
HORT 3251	Landscape and Environment 1	3
HORT 3270	Urban Agriculture	3
Select 9 credits of HORT electives at the 2000 level or higher		9
Select 6 credits of Breadth electives ¹		6
Credits		30
Year 4		
HORT 4231	Riparian Management	3
HORT 4252	Landscape and the Environment: Applications	3
HORT 4253	Urban Ecology	3
HORT 4440	Vegetation Management	3
HORT 4480	Society and Horticulture	3
HORT 4810	Applied Research Project 1 Horticulture	3
HORT 4820	Applied Research Project 2	3
Select 9 credits of Breadth electives, including at least 3 credits at the 3000 level or higher ¹		9
Credits		30
Total Credits		121

¹ CMNS 1140 may be used as a Breadth elective.

Credential Awarded

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