

# BACHELOR OF APPLIED SCIENCE IN SUSTAINABLE AGRICULTURE

## At a Glance

### Faculty

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

### Area of Study:

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

### Academic Level:

Undergraduate

### Credential Granted:

Baccalaureate Degree

### Start Date:

Fall (September)

Spring (January)

Summer (May)

### Intake Type:

- Open

### Minimum Credits Required:

123

### Curriculum Effective Date:

01-Sep-2015

## Description

The Bachelor of Applied Science in Sustainable Agriculture degree is unique to North America and is distinguished from other agriculture degree programs by providing a broad scope of study related to sustainable food production as an integral and fundamentally critical element of sustainable human existence. Through a distinctive and exceptional combination of classroom and farm-based learning, the program offers a comprehensive perspective on:

- The science of agro-ecosystem design and stewardship;
- Innovative and ecologically sound crop production methods;
- Sustainable farm business management; and,
- The economic, social, and environmental challenges facing our food system

## Learning Outcomes

The curriculum is designed in recognition of the need for both practical and academic training within the new powerful movement in sustainable agriculture. Students will be immersed in a setting which fosters experiential learning and exploring personal interests and inclination. During our four year Bachelor degree program, students will work to realize three major learning outcomes:

- *The ability to grow fruit and vegetable crops within a sustainable ecological context.* A full spectrum of experiential field-based agricultural courses are offered in Year 3 which, by necessity, follows a complete crop cycle beginning in the spring and extending through summer into the fall. These applied courses function as a mechanism to bring the theoretical concepts and principles of sustainable agro-ecosystem design, function and management to practical realization.
- *Develop the business, sales and marketing skills necessary to manage a sustainable agricultural farming business.* The development of these skills is facilitated by the inclusion of a broad base of foundational courses supplemented by a multidisciplinary business management course in Year Four.
- *Develop practical, problem solving and research skills as well as an understanding of government, economic and business environments and policies needed to address issues of and advance sustainable agri-food systems, as related to employment in government, non-government organizations and the private sector.*

## Who Studies Sustainable Agriculture?

Individuals interested in gaining a practical understanding of sustainably growing food for their communities as well as those who wish to see this type of local-regional agriculture and food system integrated fully into society. This program will appeal to students who recognize that environmental stewardship and community involvement are critical to our food system and who wish to be part of a new approach to agriculture. Students looking for creative, hands-on work on farms and in the community will thrive in this program.

## Career Opportunities

Sustainable, local food production is a rapidly developing component of sustainable community/ regional planning and development is on the minds of the public and governments alike. Program graduates will be sought after in areas as diverse as planning, resource management, politics, government, non-government organizations, related business, and production agriculture.

## Requirements

### Admission Requirements

The Faculty's Admission Requirements, which consist of KPU's undergraduate English Proficiency Requirement (<https://calendar.kpu.ca/admissions/english-proficiency-requirements/>), apply to this program.

### Declaration Requirements

Students intending to graduate with this Faculty of Science 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

The Bachelor of Applied Science in Sustainable Agriculture consists of 123 credits of course work, including 27 credits of electives. A minimum

of 15 credits of electives must be chosen from subject areas other than AGRI, including at least 3 credits at the 3000-level or above.

<sup>2</sup> Students must have 3 credits of courses identified as Writing Intensive to graduate.

Course	Title	Credits
<b>Year 1</b>		
Note: Courses in Year One follow the agricultural season and progression of agricultural practices.		
AGRI 1100	Applied Organic Agriculture I	3
AGRI 1130 or INDG 1130	Indigenous Perspectives in Food Systems or Indigenous Perspectives in Food Systems	3
AGRI 1150	Foundations of Sustainable Agriculture	3
AGRI 1200	Applied Organic Agriculture II	6
BIOL 1110	Introductory Biology I	4
ENGL 1100	Introduction to University Writing	3
ENVI 1106	Environmental Chemistry I	4
MATH 1115	Statistics I <sup>1</sup>	3
Select one of the following:		3
POLI 2100	Sustainability and Government	
POST 1100 or PHIL 1111	Sustainability and Ethics or Sustainability and Ethics	
POST 1200	Inclusive Communities, Sustainable Futures	
<b>Credits</b>		<b>32</b>
<b>Year 2</b>		
AGRI 2100	Applied Organic Agriculture III	3
AGRI 2150 or PHYS 2150	or	3
AGRI 2190	Plant Science	3
AGRI 2220	Soil Stewardship and Management	4
AGRI 2230	Sustainable Human Economy	3
AGRI 2250	Agriculture and Food Systems in British Columbia	3
AGRI 2320	Advanced Soil Management	3
AGRI 2350	Agroecology	3
BIOL 2322	Ecology	4
<b>Summer Intersession</b>		
AGRI 2299	Agri-Food in the Field	2
<b>Credits</b>		<b>31</b>
<b>Year 3</b>		
Note: Courses in Year Three follow the agricultural season and progression of agricultural practices.		
AGRI 3120	Agricultural Enterprise Design	3
AGRI 3130	Business Plans for Agriculture	3
AGRI 3220	Agricultural Pests and Beneficials	3
AGRI 3225	Experimental Design & Analysis	3
AGRI 3230	Agricultural Pest Management	3
AGRI 3270	Vegetable Crop Production	3
AGRI 3280	Fruit and Nut Crop Production	3
AGRI 4100	Crop Management Field Lab	3
Electives		6
<b>Credits</b>		<b>30</b>
<b>Year 4</b>		
AGRI 3398	Crop Physiology and Ecology	3
AGRI 4250	Agroecology In Action	3
AGRI 4298	Agroecology as a Global Movement	3
Electives <sup>2</sup>		21
<b>Credits</b>		<b>30</b>
<b>Total Credits</b>		<b>123</b>

## Credential Awarded

Upon successful completion of this program, students are eligible to receive a **Bachelor of Applied Science in Sustainable Agriculture**.

<sup>1</sup> Students who need to upgrade in order to meet the prerequisites for ENVI 1106 or MATH 1115, which is required in Year Two, may use MATH 1112 or MATH 1117 as an elective.