

Sustainable Agriculture: Bachelor of Applied Science

employment in government, non-government organizations and the private sector.

Faculty of Science and Horticulture	kwantlen.ca/science
Implementation Date	01-Sep-2012
Start Date(s)	September
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.kwantlen.ca/admission

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*

STUDENT PROFILE

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.

PROGRAM ADMISSION REQUIREMENTS

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

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

Note: A passing grade in Biology 11 or 12 is an asset but is not required.

Qualifying courses are available for those students who do not meet the program's admission requirements. To learn more about these options visit www.kwantlen.ca/aca.

PROGRAM REQUIREMENTS

The Bachelor of Applied Science in Sustainable Agriculture consists of 122 credits of course work

Year One

All of:

Fall Semester

AGRI 1150	Sustainable Agriculture for the 21st Century	3 credits
BIOL 1110	Introductory Biology I	4 credits
ENVI 1106	Environmental Chemistry I	4 credits
GEOG 1101	Human Geography	3 credits
MATH 1117	Environmental Mathematics	3 credits

Spring Semester

AGRI 1299	Food System Field Analysis	1 credit
BIOL 1210	Introductory Biology II	4 credits

ENVI 1206	Environmental Chemistry II	4 credits
ENGL 1100	Introduction to University Writing	3 credits
POST 1100	Sustainability: Analysis and Ethics	3 credits

Year Two

All of:

Fall Semester

AGRI 2190	Plant Science (under development)	3 credits
BIOL 2322	Ecology	4 credits
PHYS 1500	Physics of the Environment (under development)	4 credits
GEOG 2250	The City	3 credits
POST 2100	Sustainability and Government	3 credits

Spring Semester

MATH 1115	Statistics I	3 credits
AGRI 2220	Soil Science (under development)	4 credits
AGRI 2230	Sustainable Human Economy (under development)	3 credits
AGRI 2240	Ecologically Based Pest Management (under development)	3 credits
AGRI 2250	Agriculture and Food Systems (under development)	3 credits

Year Three

All of:

Spring Semester*

AGRI 3225	Experimental Design and Analysis (under development)	3 credits
AGRI 3260	Animal Agriculture (under development)	3 credits
AGRI 3270	Olericulture (under development)	3 credits
AGRI 3280	Pomology (under development)	3 credits
AGRI 3290	Agro-Ecosystems Management I (under development)	3 credits

Summer Semester*

AGRI 3390	Agro-Ecosystems Management II (under development)	6 credits
AGRI 3398	Crop Physiology and Ecology (under development)	3 credits

AGRI 3399	Research Project I (under development)	3 credits
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An elective† course (any course numbered 1100 or higher of 3 or more credits) 3 credits

* **Note:** Courses in Year Three follow the agricultural season and progression of agricultural practices.

Year Four

All of:

Fall Semester

AGRI 3135	Business of Agriculture (under development)	6 credits
AGRI 4190	Agro-Ecosystems Management III (under development)	3 credits

Two elective† courses (numbered 1100 or higher of 3 or more credits) 6 credits

Spring Semester

AGRI 4298	World Trends in Agriculture (under development)	3 credits
AGRI 4299	Research Project II (under development)	3 credits
AGRI 4295	Internship (under development)	3 credits

An elective† course (any course numbered 1100 or higher of 3 or more credits) 3 credits

†**Note:** One of the elective courses must be an ENGL course or a course meeting writing-intensive guidelines.

CREDENTIAL AWARDED

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