UNIVERSITY OF THE FRASER VALLEY

ORIGINAL COURSE IMPLEMENTATION DATE: September 2009
REVISED COURSE IMPLEMENTATION DATE: September 2026
COURSE TO BE REVIEWED (six years after UEC approval)**:** April 2029
Course outline form version: 29/08/2024

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: AGRI 321	**Number of Credits:** 3 Course credit policy (105)
Course Full Title: Vegetable Crop Production: Science and Practice **Course Short Title:** Vegetable Crop Production	
Faculty: Faculty of Science	**Department/School:** Agriculture Technology

Calendar Description:

Principles and practices of field production of vegetable crops will be explored using a combination of theory and hands-on practice in the on-campus greenhouse and outdoor classroom. Biology of commonly grown field vegetable crops and management practices from pre-planting through to post-harvest handling are explored. Emphasis is placed on practices that reduce contribution and/or increase adaptation to climate change. The course also introduces uses of native plants by Indigenous communities, supporting culturally informed and sustainable agricultural practice.

Note: Field trips during class time will be required. Please check with the department for details.

Prerequisites (or NONE):	None.
Corequisites (if applicable, or NONE):	None.
Pre/corequisites (if applicable, or NONE):	AGRI 124.

Antirequisite Courses *(Cannot be taken for additional credit.)*

Former course code/number: **AGRI 222**

Cross-listed with:

Equivalent course(s):

(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)

Typical Structure of Instructional Hours

Lecture/seminar	30
Supervised laboratory hours (science lab)	12
Experiential (field trip)	3
Total hours	**45**

Scheduled Laboratory Hours

Labs to be scheduled independent of lecture hours: **No**

Course Details

Special Topics course: **No**
(If yes, the course will be offered under different letter designations representing different topics.)

Directed Study course: **No**
(See policy 207 for more information.)

Grading System: **Letter grades**

Delivery Mode: **Face-to-face only**

Expected frequency: **Annually**

Maximum enrolment (for information only)**: 36**

Prior Learning Assessment and Recognition (PLAR)

PLAR is available for this course.

Yes

Transfer Credit *(See bctransferguide.ca.)*

Transfer credit already exists: **Yes**

Submit outline for (re)articulation: **Yes**
(If yes, fill in transfer credit form.)

Department approval	**Date of meeting:**	December 2, 2025
Faculty Council approval	**Date of meeting:**	January 23, 2026
Undergraduate Education Committee (UEC) approval	**Date of meeting:**	March 27, 2026

Learning Outcomes *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Describe requirements to successfully grow field vegetable crops of economic importance to British Columbia.
2. Design appropriate farm management practices and growing systems for field vegetable crops.
3. Implement data driven decision making using soil and tissue testing, data collection, monitoring and targeted experimentation to improve sustainability and productivity.
4. Evaluate appropriate varieties of vegetable crops.
5. Develop management plans for biotic and abiotic stresses affecting vegetable crops.
6. Determine appropriate timing and techniques for harvest and postharvest handling of vegetable crops.
7. Explain historical and contemporary uses of the roots, shoots, and leaves of native plants by Indigenous communities.
8. Discuss practices to adapt to and mitigate contribution to climate change specific to the field vegetables production.

Recommended Evaluation Methods and Weighting *(Evaluation should align to learning outcomes.)*

Assignments:	20%	Final exam:	20%	Quizzes/tests/midterm:	30%
Project:	30%		%		%

Details:

Assignment 1: Vegetable exploration in a grocery store (6%)
Assignment 2: Field trip report (7%)
Assignment 3: Vegetables variety trial (7%)
Project: Conducting a research project on vegetable cultivation (30%)

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Typical Instructional Methods *(Guest lecturers, presentations, online instruction, field trips, etc.)*

Lectures, group discussions, hands-on activities, field trip.

Texts and Resource Materials *(Include online resources and Indigenous knowledge sources. Open Educational Resources (OER) should be included whenever possible. If more space is required, use the Supplemental Texts and Resource Materials form.)*

	Type	Author or description	Title and publication/access details	Year
1.	Online resource		BC Vegetables Production Guides (https://www2.gov.bc.ca/gov/content/industry/agriservice-bc/production-guides/vegetables)	Current
2.	Online resource		OMAFRA Vegetable Production Information - Commercial Vegetable Production (http://omafra.gov.on.ca/english/crops/hort/vegetable.html)	Current
3.	Textbook	Welbaum, Gregory E.	Vegetable Production and Practices. CABI Pub., 476 pp. (https://www.cabi.org/products-and-services/about-cabi-books/open-resources/vegetable-production-and-practices/)	Current
4.				
5.				

Required Additional Supplies and Materials *(Software, hardware, tools, specialized clothing, etc.)*

Calculator, CSA (Canadian Safety Association) approved footwear, lab coat, transportation to field trips.

Course Content and Topics

1. Introduction, vegetable production statistics, and classification
2. Vegetable seeds, variety, and planting
3. Transplanting vegetables
4. Soil preparation techniques and conservation tillage for field vegetables production
5. Growing systems for field vegetables crops
6. Nutrient management of field vegetables in conventional, organic and sustainable systems
7. Biology, physiology, and production practices of common vegetable crops of the families Solanaceae, Amaryllidaceae, Cucurbitaceae, Brassicaceae; Fabaceae, Apiaceae, etc.
8. Identification of native vegetables and food plants used by Indigenous communities and their production practices.
9. Harvest, postharvest, storage, and food safety of vegetable crops
10. Crop planning for vegetable farm