



UNDERGRADUATE EDUCATION COMMITTEE (UEC) MEETING
April 21, 2023 - 10:00 AM
A225

AGENDA

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Page

**1. APPROVAL OF THE AGENDA**

**2. APPROVAL OF UEC MINUTES**

3 - 9      **2.1. UEC draft minutes: March 24, 2023**

MOTION: To approve the draft minutes as presented.

**3. COURSES AND PROGRAMS**

10 -      **3.1. Agriculture**

89      Review with changes including title and total hours: AGRI 123, 129, 183  
Review with changes: AGRI 124, 248  
Review with changes including total hours: AGRI 204, 272  
Review with changes including title, pre/corequisites, and total hours: AGRI  
212, 371  
Review with changes including pre/corequisites and total hours: AGRI 220  
Review with changes including prerequisites: AGRI 311  
Review with changes including pre/corequisites: AGRI 321, 323, 327  
Review with changes including title and pre/corequisites: AGRI 324

MOTION: To approve the AGRI course outlines as presented.

90 -      **3.2. Adult Education**

97      Review with changes including prerequisites and pre/corequisites: ADED 365,  
405

MOTION: To approve the ADED course outlines as presented.

98 -      **3.3. Philosophy**

99      Discontinuation: PHIL 305, 310, 323, 325, 360, 367, 371, 372

MOTION: To approve the discontinuation of PHIL 305, 310, 323, 325, 360, 367,  
371, and 372 as presented.

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106

**3.4. Arts**

Changes to program requirements: Liberal Arts diploma

MOTION: To approve the changes to the Liberal Arts diploma as presented, effective September 2023.

**4. OTHER BUSINESS/DISCUSSION ITEMS**

**4.1. Communication with Curriculum Committees**

107 -  
108

**4.2. UEC Terms of Reference**

**4.3. APPC report**

**4.4. Senate report**

**4.5. Senate Teaching and Learning Committee report**

**4.6. Policy Subcommittee report**

**5. INFORMATION**

**5.1. UEC Resources**

- [Program and Course Approval Procedures](#)
- [Approval processes and flowcharts](#)
- [Curriculum Quality Guidelines](#)
- [Course development](#)
- [Program changes](#)
- [New program development](#)
- [Integrated Strategic Plan](#)

**6. ADJOURNMENT**



## **UNDERGRADUATE EDUCATION COMMITTEE (UEC) MEETING**

March 24, 2023  
10:00 AM - A225  
Abbotsford Campus

### **DRAFT MINUTES**

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**PRESENT:** Donna Alary, Teresa Arroliga-Piper, Courtney Boisvert, Nicholas Johnson, Amber Johnston, David Johnston, Selena Karli, Randy Kelley, Dana Landry, Catherine Liao, William Maher, Linda Pardy, Samantha Patridge, Vanessa Radzimski, and Shel Stefan

**ABSENT:** Ian Affleck, Claire Carolan, Vlad Dvoracek, Shirley Hardman, Claire Hay, Olivia Jackson, Carl Janzen, Bobby Jaswal, David McGuire, and Ravneet Sohal

**GUESTS:** Edward Akuffo, Adrianna Bakos, Paul Brammer, Alan Cameron, Maria de Luna, Zoe Dennison, Sarah Graham, Samantha Hampton, Gillian Hatfield, Zina Lee, Curtis Magnuson, Rashad Mammadov, Marlene Murray, Sylvie Murray, Stefania Pizzirani, Jessica Price, Noah Schwartz, Steven Schroeder, Christine Slavik, Eric Spalding, Shellie Steidle, Kirsten Robertson

**RECORDER:** Amanda Grimson

#### **1. APPROVAL OF THE AGENDA**

#### **2. APPROVAL OF UEC MINUTES**

##### **2.1. UEC draft minutes: February 24, 2023**

##### **MOTION:**

To approve the draft minutes as presented.

**CARRIED**

#### **3. COURSES AND PROGRAMS**

##### **3.1. Health Studies**

New course: NURS 214, Health and Wellness I: Acute and Chronic Care

New course: NURS 215, Professional Nursing I: Ethics and Legal Concepts

New course: NURS 216, Nursing Practice I: Mental Health and Surgical

New course: NURS 314, Health and Wellness II: Childbearing/Pediatric: Person and Families

New course: NURS 315, Professional Nursing II: Research and Ethics

New course: NURS 316, Nursing Practice II: Childbearing/Pediatric: Person and Families

New course: NURS 324, Health and Wellness III: Community Health

New course: NURS 325, Professional Nursing III: Community Leadership

New course: NURS 326, Nursing Practice III: Community

New course: NURS 414, Health and Wellness IV: Acute and Complex Care

New course: NURS 415, Professional Nursing IV: Leadership and Ethics in Complex Settings

New course: NURS 416, Nursing Practice IV: Acute Medicine and Complex Care

New course: NURS 426, Nursing Practice V: Preceptorship

##### **MOTION:**

To approve the NURS course outlines as amended:

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24 Mar 2023

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- NURS 214 learning outcome #1 changed to "Explore the interrelationship of social determinants of health when working with adults in the surgical and mental health care environments."

CARRIED

Changes to program requirements: LPN Access to Bachelor of Science in Nursing

**MOTION:**

To recommend approval of the changes to the LPN Access to Bachelor of Science in Nursing program requirements as presented, effective September 2023.

CARRIED

**3.2. Kinesiology**

Changes to entrance requirements: Bachelor of Kinesiology

**MOTION:**

To recommend approval of the Bachelor of Kinesiology entrance requirements as presented.

CARRIED

**3.3. Child, Youth, and Family Studies**

Review with changes: CYC 330

Changes including prerequisites and pre/corequisites: CYC 410

**MOTION:**

To approve the CYC course outlines as presented.

CARRIED

**3.4. Indigenous Studies**

Changes including equivalent courses: IPK 100

**MOTION:**

To approve the IPK 100 course outline as presented.

CARRIED

**3.5. Political Science**

Changes including prerequisites: POSC 321, 324

New course: POSC 307, Government and Business

New course: POSC 357, Guns and Politics

**MOTION:**

To approve the POSC course outlines as presented.

CARRIED

**3.6. Psychology**

Review with changes including title: PSYC 408, 499

Review with changes including prerequisites: PSYC 490

Review with changes including title, prerequisites, credits, total hours: PSYC 498

**MOTION:**

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To approve the PSYC course outlines as amended:

- PSYC 408 learning outcome #4 changed to “Analyze the relationship between psychological ideas and the wider social context within which they develop, including the impact of psychological theories and practices on historically marginalized groups.”
- PSYC 408 learning outcome #5 changed to “Reflect, in writing, on dominant (e.g., realism, positivism) and alternative (e.g., phenomenology, Indigenous ways of knowing) ontological and epistemological assumptions within psychology.”

CARRIED

**3.7. Applied Business Technology**

New course: ABT 188, Capstone

**MOTION:**

To approve the ABT 188 course outline as presented.

CARRIED

Changes to entrance and program requirements: Applied Business Technology certificate

**MOTION:**

To recommend approval of the changes to the Applied Business Technology certificate as presented, effective September 2023.

CARRIED

**3.8. Business**

New course: BUS 315, Cultivating Positive Workplaces

**MOTION:**

To approve the BUS 315 course outline as presented.

CARRIED

Changes to program requirements: Human Resource Management major

**MOTION:**

To approve the changes to the Human Resource Management major as presented, effective September 2023.

CARRIED

**3.9. Communications**

Discontinuation: CMNS 120, CMNS 300/JRNL 300

New course: CMNS 201/JRNL 201, Foundations of Journalism Practice

Change to course prerequisites: CMNS 301/JRNL 301, CMNS 312

New course: CMNS 311, Investigative Reporting

New course: CMNS 499, Special Topics in Journalism Practice

Review with changes including prerequisites: CMNS 490

**MOTION:**

To approve the discontinuation of CMNS 120 and CMNS 300/JRNL 300 as presented.

CARRIED

**MOTION:**

To approve the CMNS course outlines as presented.  
CARRIED

**3.10. Culture, Media, and Society**

New course: ANTH 399, Special Topics in Anthropology II

**MOTION:**

To approve the ANTH 399 course outline as presented.  
CARRIED

Changes to program requirements: Essentials of Journalism associate certificate

**MOTION:**

To approve the changes to the Essentials of Journalism associate certificate program requirements, effective September 2023.  
CARRIED

**3.11. Criminology and Criminal Justice**

Discontinuation: CRIM 261, 262, 263, 264, 291, 292, 293, 295, 296, 299, 391, 392, 394

**MOTION:**

To approve the discontinuation of the CRIM courses as presented.  
CARRIED

Change to program requirements: Bachelor of Arts (Criminal Justice)

**MOTION:**

To approve the changes to the Bachelor of Arts (Criminal Justice) as presented, effective September 2023.  
CARRIED

**3.12. Global Development Studies**

New course: GDS 320, Decolonizing Aid and Development

New course: GDS 370, Fundamentals of Global Health and Development

Discontinuation: GDS 270

**MOTION:**

To approve the GDS course outlines and discontinuation of GDS 270 as presented.  
CARRIED

Changes to program requirements: Bachelor of Arts in Global Development Studies

Changes to program requirements: Global Development Studies extended minor and minor

These changes have been in development within the College of Arts for two years and have involved consultation and research both within UFV and with other institutions. Removal of the second language requirement has been a

particular area of discussion. Concerns include a lack of supporting data and an employment disadvantage for graduates. Program representatives acknowledged the importance of language acquirement but noted that this will allow students to pursue a language of their choice in a less prescriptive way. Degree students will be encouraged to pursue minors and/or proficiency certificates in Modern Languages, and some students will find immersion to be a more valuable way of learning a language.

**MOTION:**

To recommend approval of the changes to the Bachelor of Arts in Global Development Studies, Global Development Studies extended minor, and Global Development Studies minor program requirements as presented, effective September 2023.

CARRIED; 1 OPPOSED

**3.13. Modern Languages**

Changes to program requirements: Spanish Language and Culture minor

There was some concern about removal of the introductory Spanish courses. Program representatives noted both that this is consistent with the French minor, and that since SPAN 101 and 102 are equivalent to high school courses, it is more appropriate for them to be taken prior to the minor.

**MOTION:**

To approve the changes to the Spanish Language and Culture minor as presented, effective September 2023.

CARRIED; 1 ABSTENSION

**3.14. History**

New course: HIST 116, Modern East Asia: From 1600 to Recent Times

**MOTION:**

To approve the HIST 116 course outline as presented.

CARRIED

Change to program requirements: History major and extended minor

**MOTION:**

To approve the change to the History major and extended minor as presented, effective September 2023.

CARRIED

**3.15. Media Arts**

Review with changes: MEDA 100, 260

Review with changes including title and prerequisites: MEDA 350

Review with changes including prerequisites: MEDA 360

New course: MEDA 403, Media Arts Integrated Project

**MOTION:**

To approve the MEDA course outlines as presented.

CARRIED

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Changes to program requirements: Bachelor of Media Arts

**MOTION:**

To approve the changes to the Bachelor of Media Arts program requirements as presented, effective September 2023.

CARRIED

**3.16. Peace and Conflict Studies**

New course: PACS 201, Equity-Based Dialogue and Engagement

New course: PACS 202, Introduction to Mediating Conflict

New course: PACS 300, Religion, Violence, and Peacebuilding

Changes including prerequisites: PACS 310

**MOTION:**

To approve the PACS course outlines as presented.

CARRIED

Changes to program requirements: Peace and Conflict Studies major and minor

**MOTION:**

To approve the changes to the Peace and Conflict Studies major and minor as presented, effective September 2023.

CARRIED

**3.17. Social Work and Human Services**

Discontinuation: HSER 196

Review with changes: SOWK 210

**MOTION:**

To approve the discontinuation of HSER 196 as presented.

CARRIED

**MOTION:**

To approve the SOWK 210 course outline as presented.

CARRIED

Change to program requirements: School and Community Support Worker certificate

Change to entrance requirements: Bachelor of Social Work

**MOTION:**

To approve the changes to the School and Community Support Worker certificate program requirements as presented, effective September 2023.

**MOTION:**

To recommend approval of the Bachelor of Social Work entrance requirements as presented.

CARRIED

**3.18. Environmental Studies**

Changes to program requirements: Bachelor of Environmental Studies



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Changes to program requirements: Bachelor of Environmental Studies (Natural Sciences)

**MOTION:**

To approve the changes to the Bachelor of Environmental Studies and Bachelor of Environmental Studies (Natural Sciences) as presented, effective September 2023.

CARRIED

**3.19. Trades**

Name change: Cabinetmaking (Joinery) certificate (formerly Joinery certificate)

**MOTION:**

To recommend that the Joinery certificate be renamed the Cabinetmaking (Joinery) certificate as presented, effective September 2023.

CARRIED

**4. OTHER BUSINESS/DISCUSSION ITEMS**

**4.1. APPC report**

This item was postponed.

**4.2. Senate report**

This item was postponed.

**4.3. Senate Teaching and Learning Committee report**

This item was postponed.

**4.4. Policy Subcommittee report**

This item was postponed.

**5. INFORMATION ITEMS**

**5.1. Culture, Media, and Society**

Change to program requirements: Sociology/Anthropology major and Sociology major

**5.2. Minor course changes**

STAT 450/MATH 450

**5.3. Program suspensions**

Suspended for two years: Applied Management concentration, Bachelor of Integrated Studies

Suspended for two years: English Language Studies

Suspended for two years: Migration and Citizenship graduate certificate and diploma

**6. ADJOURNMENT**

The meeting was adjourned at 12:05 pm.

**Memo for Course Changes**

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: October 16, 2022

Subject: Proposal for revision of **Agri 123 Horticulture Skills and Techniques for Fall**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☒ Credits and/or total hours
- ☒ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes and course description reflect updates to knowledge and skills required for current and future agricultural practice. The course is an approved course for the BC Institute of Agrologists. The change in title reflects the fact that while some of skills obtained in this course (e.g., bulb planting or fall pruning) are bound by time of year, others are not (e.g., fire smart garden design or use of plant growth regulators). The change in hours reflect how the course is delivered now within the semester with one meeting time a week (during two consecutive blocks).*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                                                                                                | ILOs                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| 1. Propagate plantings from semi-ripe, herbaceous, and hardwood cuttings                                                | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                            |
| 2. Explain the role of hormones in plant growth and development, and the use of synthetic hormones in plant propagation | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently |

|                                                                                                                        |                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. Prepare land for planting with different turf blends                                                                | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently                                                                       |
| 4. Maintain established turf                                                                                           | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                                  |
| 5. Practice bulb and rhizome culture including planting and maintenance                                                | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                                  |
| 6. Maintain small power equipment (gas or electrical)                                                                  | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                                  |
| 7. Explain the role of mulching in different horticultural settings (e.g. landscape, berries, tree fruit)              | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                                  |
| 8. Calculate mulch volumes required for different scenarios                                                            | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                                  |
| 9. Design an ornamental planting for a specific end us (e.g. fire smart gardening, low maintenance commercial setting) | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>4. Initiate inquiries and develop solutions to problems<br>8. Engage in respectful and professional practices |
| 10. Identify and prune shrubs and trees suitable for fall pruning                                                      | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                                  |

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? None.

**NB: Questions 6 and 7 have been answered in a similar way for Agri 123, 124, 129 and 220 as there is overlap in methodology in incorporating Indigenous knowledge and addressing EDI across the four courses.**

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#). *Agri 123, 124, 129 and 220 represent foundational knowledge courses for the various horticulture related Agriculture Technology programs (certificate, diploma, and degree). As the focus of these courses is*

on plants there are a number of ways to authentically recognize Indigenous knowledge both in terms of content and delivery.

- a. *Examples: Indigenous knowledge is incorporated into delivery when hands-on activities are required by selecting plants that are important for local First Nations for the activity. For example, when practicing hardwood cuttings western red cedar, Thuja plicata, (xpá:yelhp in Halq'eméylem), collected from campus, is one of the plants students propagate. When demonstrating the difference between simple and compound leaves – salmonberry Rubus spectabilis (elíle) and hazelnut Corylus cornuta (th'itsemelhp) leaves are used. Salmonberry (elíle) is provided as an example of a perennial, dicot, shrub that produces aggregate fruit. Using plants important to local First Nations provides a chance for instructors to not only illustrate technical concepts but also to share information with students about the historical and contemporary uses of these plants.*
- b. *Names: When available the Halq'eméylem name is provided along with the common and scientific Latin name for a plant species in all of these courses.*
- c. *Learning Outcomes: Specific learning outcomes about plants that have important uses in local First Nations culture are explored in Agri 220 (LO 6) and Agri 124 (LO 10).*

*All of our plant-based courses involve going outside to collect and observe plants growing around the CEP campus – both in the grounds and in the Outdoor Classroom, thus we are learning from and about the place that the campus is located.*

*These elements align with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#) specifically (with underlines for my emphasis)*

- *Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors*
  - *Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)*
  - *Learning recognizes the role of Indigenous knowledge.*
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *All of these courses have a high degree of hands-on learning as demonstrated by the large number of experiential hours. Hands-on learning is an intentional delivery method in our program as it makes technical language and content relatable and accessible to a wide range of learners.*
  8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) *These courses do not have stand-alone labs or separate field trips. Instead, the courses are taught so that students can move from lecture to hands-on (in the lab, the outdoor classroom/greenhouses, or off-campus field trips) within the time frame of a lecture.*

9. Estimate of the typical costs for this course, including textbooks and other materials: *Lab coat \$30 (can be reused from other courses); field trip costs (fuel) are approximately \$50, with all field trips within 30km of CEP campus.*



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2003  
**REVISED COURSE IMPLEMENTATION DATE:** January 2024  
**COURSE TO BE REVIEWED** (six years after UEC approval): April 2029  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------------------------------|----|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> AGRI 123                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Horticulture Skills I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b> Horticulture Skills I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Science/Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                           |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Practical skills applicable to different horticultural sectors will be explored in this hands-on class. Activities will take place on CEP campus in the Agriculture outdoor classroom or greenhouse.<br><br>Note: Field trips outside of class time will be required. Please check with the department for details.                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> ( <i>Cannot be taken for additional credit.</i> )<br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                                                               |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar</td> <td style="text-align: center;">15</td> </tr> <tr> <td>Supervised laboratory hours (science lab)</td> <td style="text-align: center;">30</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 15 | Supervised laboratory hours (science lab) | 30 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 15        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Supervised laboratory hours (science lab)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 30        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Transfer Credit</b> ( <i>See <a href="#">bctransferguide.ca</a>.</i> )<br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                      |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |

**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. Propagate plantings from semi-ripe, herbaceous, and hardwood cuttings.
2. Explain the role of hormones in plant growth and development, and the use of synthetic hormones in plant propagation.
3. Prepare land for planting with different turf blends.
4. Maintain established turf.
5. Practice bulb and rhizome culture including planting and maintenance.
6. Maintain small power equipment (gas or electrical).
7. Explain the role of mulching in different horticultural settings (e.g., landscape, berries, tree fruit).
8. Calculate mulch volumes required for different scenarios.
9. Design an ornamental planting for a specific end use (e.g., fire smart gardening, low maintenance commercial setting).
10. Identify and prune shrubs and trees suitable for fall pruning.

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

|              |     |                |     |             |     |
|--------------|-----|----------------|-----|-------------|-----|
| Assignments: | 30% | Quizzes/tests: | 35% | Final exam: | 35% |
|              | %   |                | %   |             | %   |

**Details:**

Final exam will include a practical skills assessment.

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

**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. Textbook | McMahon, M.           | Plant Science: Growth, Development, and Utilization of Cultivated Plants                                                                                                                                                                                                                                                                                                                                     | 2019 |
| 2. Textbook |                       | Red Seal Landscape Horticulturist Identify Plants and Plant Requirements ( <a href="https://open.bccampus.ca/browse-our-collection/find-open-textbooks/?uuid=4c5f9ce3-4238-4576-94cd-e02710b8fc4a&amp;contributor=&amp;keyword=&amp;subject=">https://open.bccampus.ca/browse-our-collection/find-open-textbooks/?uuid=4c5f9ce3-4238-4576-94cd-e02710b8fc4a&amp;contributor=&amp;keyword=&amp;subject=</a> ) |      |
| 3.          |                       |                                                                                                                                                                                                                                                                                                                                                                                                              |      |
| 4.          |                       |                                                                                                                                                                                                                                                                                                                                                                                                              |      |
| 5.          |                       |                                                                                                                                                                                                                                                                                                                                                                                                              |      |

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

Pruners, pocketknife, CSA (Canadian Safety Association) approved footwear, work gloves, rain gear and appropriate work clothing, calculator, transportation to field trips.

**Course Content and Topics**

- Cuttings and rooting hormones
- Propagation
- Turf blends: species and uses
- Seed biology, germination, and seeding
- Bulbs, corms rhizomes
- Introduction to pruning
- Power equipment: use, risks, gas vs. electric
- Garden maintenance, mulch
- Current methods used in ornamental nursery sector
- Garden design

**Memo for Course Changes**

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: October 16, 2022

Subject: Proposal for revision of **Agri 124 Introduction to Horticulture**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes and course description reflect updates to knowledge and skills required for current and future agricultural practice. The course is an approved course for the BC Institute of Agrologists.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                                                                                                                       | ILOs                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 1. Explain the history of horticulture and describe different horticulture sectors                                                             | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively  |
| 2. Explain plant classifications and nomenclature, and life cycles of flowering plants                                                         | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |
| 3. Describe plant anatomy and function from the cell organelle level to cell types, tissue systems, and organs, pollination and fertilization. | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |



|                                                                                                                                                           |                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 4. Explain functions of the naturally occurring plant hormones and how they influence plant growth                                                        | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                       |
| 5. Describe photosynthesis and respiration                                                                                                                | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                       |
| 6. Describe how photosynthesis and respiration are influenced by the following environmental factors: light, temperature, water, gases, plant nutrition   | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                       |
| 7. Understand the key plant nutrient groups                                                                                                               | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently            |
| 8. Describe how water and plant metabolites are moved throughout plants                                                                                   | 1. Demonstrate information competency                                                                                                   |
| 9. Describe transpiration                                                                                                                                 | 1. Demonstrate information competency                                                                                                   |
| 10. Identify 10 commercially important plants to the Fraser Valley including family, genus, and species, propagation, and when applicable Indigenous uses | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>8. Engage in respectful and professional practices |

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A

5. Which program areas have been consulted about the change(s)? None.

**NB: Questions 6 and 7 have been answered in a similar way for Agri 123, 124, 129 and 220 as there is overlap in methodology in incorporating Indigenous knowledge and addressing EDI across the four courses.**

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#). *Agri 123, 124, 129 and 220 represent foundational knowledge courses for the various horticulture related Agriculture Technology programs (certificate, diploma, and degree). As the focus of these courses is on plants there are a number of ways to authentically recognize Indigenous knowledge both in terms of content and delivery.*

- a. *Examples: Indigenous knowledge is incorporated into delivery when hands-on activities are required by selecting plants that are important for local First Nations for the activity. For example, when practicing hardwood cuttings western red cedar, Thuja plicata, (x̣pá:yelhp in Halq'eméylem), collected from campus, is one of the plants students propagate. When demonstrating the difference between simple and compound leaves – salmonberry Rubus spectabilis (elíle) and hazelnut Corylus cornuta (th'itsemelhp) leaves are used. Salmonberry (elíle) is provided as an example of a perennial, dicot, shrub that produces aggregate fruit. Using plants important to local First Nations provides a chance for instructors to not only illustrate technical concepts but also to share information with students about the historical and contemporary uses of these plants.*
- b. *Names: When available the Halq'eméylem name is provided along with the common and scientific Latin name for a plant species in all of these courses.*
- c. *Learning Outcomes: Specific learning outcomes about plants that have important uses in local First Nations culture are explored in Agri 220 (LO 6) and Agri 124 (LO 10).*

*All of our plant-based courses involve going outside to collect and observe plants growing around the CEP campus – both in the grounds and in the Outdoor Classroom, thus we are learning from and about the place that the campus is located.*

*These elements align with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#) specifically (with underlines for my emphasis)*

- *Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors*
  - *Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)*
  - *Learning recognizes the role of Indigenous knowledge.*
7. *How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *All of these courses have a high degree of hands-on learning as demonstrated by the large number of experiential hours. Hands-on learning is an intentional delivery method in our program as it makes technical language and content relatable and accessible to a wide range of learners.**
  8. *If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) *These courses do not have stand-alone labs or separate field trips. Instead, the courses are taught so that students can move from lecture to hands-on (in the lab, the outdoor classroom/greenhouses, or off-campus field trips) within the time frame of a lecture. Agri 124 needs to be taught in a lab.**
  9. *Estimate of the typical costs for this course, including textbooks and other materials: Lab coat \$30 (can be reused from other courses); field trip costs (fuel) are approximately \$50, with all field trips within 30km of CEP campus.*



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2009  
**REVISED COURSE IMPLEMENTATION DATE:** January 2024  
**COURSE TO BE REVIEWED** (six years after UEC approval): April 2029  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------------------------------|----|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> AGRI 124                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Introduction to Horticulture                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b> Introduction to Horticulture                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                           |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Introduction to plant anatomy and physiology; physical, biological, and chemical (hormones) control of plant growth; and postharvest handling. Overview of plant taxonomy and biological nomenclature. Develops knowledge base needed to continue studying major horticultural crop groups.<br>Note: Field trips outside of class time will be required. Please check with the department for details.                                                                 |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                                      |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar</td> <td style="text-align: center;">30</td> </tr> <tr> <td>Supervised laboratory hours (science lab)</td> <td style="text-align: center;">15</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 30 | Supervised laboratory hours (science lab) | 15 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 30        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Supervised laboratory hours (science lab)                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 15        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                            |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                        |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |

AGRI 124

University of the Fraser Valley Official Undergraduate Course Outline

Page 2 of 2

**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. Explain history of horticulture and describe different horticulture sectors.
2. Explain plant classifications and nomenclature, and life cycles of flowering plants.
3. Describe plant anatomy and function from the cell organelle level to cell types, tissue systems, and organs, pollination, and fertilization.
4. Explain functions of the naturally occurring plant hormones and how they influence plant growth.
5. Describe photosynthesis and respiration.
6. Describe how photosynthesis and respiration are influenced by the following environmental factors: light, temperature, water, gases, plant nutrition.
7. Summarise the function of the key plant nutrients.
8. Describe how water and plant metabolites are moved throughout plants.
9. Describe transpiration.
10. Identify 14 important commercial and Indigenous plants to the Fraser Valley including family, genus, and species, propagation, etc.

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

|                |     |             |     |              |     |
|----------------|-----|-------------|-----|--------------|-----|
| Quizzes/tests: | 40% | Final exam: | 20% | Assignments: | 40% |
|                | %   |             | %   |              | %   |

**Details:**

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

**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. Textbook | McMahon, M.           | Plant Science: Growth, Development, and Utilization of Cultivated Plants | 2019 |
| 2.          |                       |                                                                          |      |
| 3.          |                       |                                                                          |      |
| 4.          |                       |                                                                          |      |
| 5.          |                       |                                                                          |      |

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

**Course Content and Topics**

- Horticulture history
- Horticulture sectors
- Nomenclature and different forms of classification
- Plant anatomy; cell and tissues
- Plant anatomy; vegetative organs and modifications
- Plant reproduction, pollination, and fertilization
- Plant growth regulators
- The leaf and photosynthesis
- Respiration and storage
- Environmental factors affecting plant growth and development
- Plant nutrition
- Plant water; transport in plants

**Memo for Course Changes**

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: December 12, 2022

Subject: Proposal for revision of **Agri 129 Horticulture Skills and Techniques for Winter**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☒ Credits and/or total hours
- ☒ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes and course description reflect updates to knowledge and skills required for current and future agricultural practice. The course is an approved course for the BC Institute of Agrologists. The change in title reflects the fact that many of the skills taught in the course (especially tissue culture) are not bound by time of year. The change in hours reflect how the course is delivered now within the semester with one meeting time a week (during two consecutive blocks).*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                              | ILOs                                                                                          |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 1. Setup & Troubleshoot simple irrigation systems     | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently             |
| 2. Prune fruit trees & berry crops                    | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently             |
| 3. Understand current topics in horticulture research | 2. Analyze critically and imaginatively<br>8. Engage in respectful and professional practices |

|                                                                                                                    |                                                                                   |
|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 4. Understand the principles of plant tissue culture and its applications in horticulture                          | 1. Demonstrate information competency                                             |
| 5. Perform basic micropropagation of woody, herbaceous and Indigenous plant species                                | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |
| 6. Calibrate backpack sprayers                                                                                     | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |
| 7. Start nursery and Indigenous plants from seed, selecting appropriate conditions based on packet recommendations | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |
| 8. Graft fruit trees using at least 3 types of grafting                                                            | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |
| 9. Understand the principles of seed germination & seed viability testing                                          | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? None.

**NB: Questions 6 and 7 have been answered in a similar way for Agri 123, 124, 129 and 220 as there is overlap in methodology in incorporating Indigenous knowledge and addressing EDI across the four courses.**

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#). *Agri 123, 124, 129 and 220 represent foundational knowledge courses for the various horticulture related Agriculture Technology programs (certificate, diploma, and degree). As the focus of these courses is on plants there are a number of ways to authentically recognize Indigenous knowledge both in terms of content and delivery.*
  - a. *Examples: Indigenous knowledge is incorporated into delivery when hands-on activities are required by selecting plants that are important for local First Nations for the activity. For example, when practicing hardwood cuttings western red cedar, Thuja plicata, (xpá:yelhp in Halq'eméylem), collected from campus, is one of the plants students propagate. When demonstrating the difference between simple and compound leaves – salmonberry Rubus spectabilis (elíle) and hazelnut Corylus cornuta (th'itsemelhp) leaves are used. Salmonberry (elíle) is provided as an example of a perennial, dicot, shrub that produces aggregate fruit. Using plants important to local First Nations provides a chance for instructors to not only illustrate technical concepts but also to share information with students about the historical and contemporary uses of these plants.*

b. *Names: When available the Halq'eméylem name is provided along with the common and scientific Latin name for a plant species in all of these courses.*

c. *Learning Outcomes: Specific learning outcomes about plants that have important uses in local First Nations culture are explored in Agri 220 (LO 6) and Agri 124 (LO 10).*

*All of our plant-based courses involve going outside to collect and observe plants growing around the CEP campus – both in the grounds and in the Outdoor Classroom, thus we are learning from and about the place that the campus is located.*

*These elements align with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#) specifically (with underlines for my emphasis)*

- *Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors*
- *Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)*
- *Learning recognizes the role of Indigenous knowledge.*

7. *How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? All of these courses have a high degree of hands-on learning as demonstrated by the large number of experiential hours. Hands-on learning is an intentional delivery method in our program as it makes technical language and content relatable and accessible to a wide range of learners.*
8. *If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) These courses do not have stand-alone labs or separate field trips. Instead, the courses are taught so that students can move from lecture to hands-on (in the lab, the outdoor classroom/greenhouses, or off-campus field trips) within the time frame of a lecture.*
9. *Estimate of the typical costs for this course, including textbooks and other materials: Lab coat \$30 (can be reused from other courses); field trip costs (fuel) are approximately \$50, with all field trips within 30km of CEP campus.*



ORIGINAL COURSE IMPLEMENTATION DATE: January 2004  
 REVISED COURSE IMPLEMENTATION DATE: January 2024  
 COURSE TO BE REVIEWED (six years after UEC approval): April 2029  
 Course outline form version: 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------|----|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> AGRI 129                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                            |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Horticulture Skills II<br><b>Course Short Title:</b> Horticulture Skills II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Technical skills including tissue culture, sprayer calibration, pruning, and grafting will be practiced. Activities will take place in the lab, Agriculture outdoor classroom, or greenhouse.<br><br>Note: Field trips outside of class time will be required. Please check with the department for details.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number: <b>AGRI 125, AGRI 225, AGRI 281</b><br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                                                                                                                                                                                                                                                                                                                                 |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="padding: 2px 5px;">Lecture/seminar</td> <td style="text-align: right; padding: 2px 5px;">15</td> </tr> <tr> <td style="padding: 2px 5px;">Experiential (work-integrated learning)</td> <td style="text-align: right; padding: 2px 5px;">30</td> </tr> <tr> <td style="padding: 2px 5px;"> </td> <td style="padding: 2px 5px;"> </td> </tr> <tr> <td style="padding: 2px 5px;"> </td> <td style="padding: 2px 5px;"> </td> </tr> <tr> <td style="padding: 2px 5px;"> </td> <td style="padding: 2px 5px;"> </td> </tr> <tr> <td style="text-align: right; padding: 2px 5px;"><b>Total hours</b></td> <td style="text-align: right; padding: 2px 5px;"><b>45</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 15 | Experiential (work-integrated learning) | 30 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 15        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Experiential (work-integrated learning)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 30        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                        |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                               |  |



AGRI 129

University of the Fraser Valley Official Undergraduate Course Outline

Page 2 of 2

**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. Setup and troubleshoot simple irrigation systems.
2. Prune fruit trees and berry crops.
3. Describe current topics in horticulture research.
4. Explain the principles of plant tissue culture and its applications in horticulture.
5. Perform basic micropropagation of woody, herbaceous, and Indigenous plant species.
6. Calibrate backpack sprayers.
7. Start commercial and Indigenous plants from seed, selecting appropriate conditions based on packet recommendations.
8. Graft fruit trees using at least three types of grafting.
9. Explain the principles of seed germination and seed viability testing.

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

|                |     |              |     |             |     |
|----------------|-----|--------------|-----|-------------|-----|
| Quizzes/tests: | 30% | Assignments: | 40% | Final exam: | 30% |
|                |     |              |     |             |     |

**Details:**

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

**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. Textbook | M. McMahon            | Plant Science: Growth, Development, and Utilization of Cultivated Plants | 2019 |
| 2.          |                       |                                                                          |      |
| 3.          |                       |                                                                          |      |
| 4.          |                       |                                                                          |      |
| 5.          |                       |                                                                          |      |

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

Students must have pruners, pocketknife, CSA (Canadian Safety Association) approved footwear, work gloves, rain gear, lab coat, calculator, transportation to field trips.

**Course Content and Topics**

- Irrigation design and assembly
- Pruning
- Pacific Agriculture Show
- Introduction to tissue culture, sterile technique
- Vegetative/nodal cuttings and media
- Non-vegetative techniques
- Calibration of sprayers
- Seeding, stratification, and germination
- Grafting
- Seed viability testing, seed banks

## Memo for Course Changes

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: November 13, 2022

Subject: Proposal for revision of **Agri 183 Farm and Equipment Safety**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☒ Credits and/or total hours
- ☒ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☒ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes and course description reflect updates to knowledge and skills required for current and future agricultural practice. The course is currently NOT approved by BCIA however we hope to submit the updated official course outline to BCIA for consideration. BCIA has a list of approved courses for most institutions including UFV*

[https://www.bcia.com/sites/default/files/docs/resources/UFV%20Approved%20Courses\\_Nov%2010%2C%202022.pdf](https://www.bcia.com/sites/default/files/docs/resources/UFV%20Approved%20Courses_Nov%2010%2C%202022.pdf) The name change reflects an emphasis not just on individual actions/behaviours but on the responsibility of graduates as managers and supervisor responsible for the well being of employees, co-workers, animals, environment and consumers. Work place communications in the form of standard operating procedures and training are also emphasized with a whole farm approach (including mental health awareness). This change in emphasis also means that PLAR is no longer applicable. The change in hours reflect how the course is delivered now within the semester with one meeting time a week (during two consecutive blocks).

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

|                          |      |
|--------------------------|------|
| Course Learning Outcomes | ILOs |
|--------------------------|------|

|                                                                                                                                                                                                                      |                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Identify common equipment, fire, chemical, and ergonomic hazards associated with greenhouse, livestock, and field agricultural production                                                                         | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively                                                                                                                                 |
| 2. Explain safe work procedures and requirements to mitigate occupational risk in various agricultural settings                                                                                                      | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently<br>5. Communicate effectively                                                       |
| 3. Demonstrate the correct use of personal protective and fire safety equipment.                                                                                                                                     | 3. Use knowledge and skills proficiently                                                                                                                                                                         |
| 4. Create safe work procedures, including standard operating procedures and team safety talks to mitigate specific occupational hazards (ladders, power tools and lockout, heat stress, noise) associated with farms | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently<br>5. Communicate effectively<br>8. Engage in respectful and professional practices |
| 5. Describe WHIMIS regulations in Canada                                                                                                                                                                             | 1. Demonstrate information competency<br>5. Communicate effectively                                                                                                                                              |
| 6. Operate a tractor and a skid steer safely at a basic competency level.                                                                                                                                            | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                                                |
| 7. Explain biosafety and zoonotic disease control at the farm level                                                                                                                                                  | 1. Demonstrate information competency<br>5. Communicate effectively                                                                                                                                              |
| 8. Demonstrate safe animal handling                                                                                                                                                                                  | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                                                |
| 9. Explain the roles of the Work Safe BC and AgSafe BC on the agricultural work site                                                                                                                                 | 1. Demonstrate information competency<br>5. Communicate effectively<br>8. Engage in respectful and professional practices                                                                                        |
| 10. Identify common stressors, impacts and resources for mental health care for workers in agriculture                                                                                                               | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>7. Engage in collaborative leadership                                                                                       |
| 11. Explain supervisor responsibilities in the workplace                                                                                                                                                             | 5. Communicate effectively<br>7. Engage in collaborative leadership<br>8. Engage in respectful and professional practices                                                                                        |
| 12. Develop an emergency response plan for an agricultural operation in BC                                                                                                                                           | 5. Communicate effectively<br>7. Engage in collaborative leadership<br>8. Engage in respectful and professional practices                                                                                        |

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? None.

**NB: Questions 6 and 7 have been answered in a similar way for Agri 183 and 212 as there is overlap in methodology in incorporating Indigenous knowledge and addressing EDI across the two courses.** In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

*This course contributes to and aligns with UFV's Indigenization goals primarily in the terms of topic selection and curriculum delivery. The course is focused on safety and emphasizes the practices and actions individuals can take to reduce agriculture-related risks to self, employees, animals, environment and consumers. Identifying risks and implementing mitigation steps are critical outcomes for the course. Students also practice risk identification and use of specific skills through hands-on practice which is incorporated into the course. These elements align with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNEESC](#) specifically (with underlines for my emphasis)*

- *Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors*
  - *Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)*
  - *Learning involves recognizing the consequences of one's actions*
6. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *All of these courses have a high degree of hands-on learning. Hands-on learning is an intentional delivery method in our program as it makes technical language and content relatable and accessible to a wide range of learners. Agri 183 also provides many opportunities for students to gain the specific skills associated with equipment handling (e.g. tractor and skid steer) either in a group setting during class OR via one-on-one sessions with the instructor or program technician. This option for one-on-one training is especially important for students struggling with the types of barriers that impact their confidence and contribute to anxiety. The goal of Agri 183 is to help students build their technical confidence with commonly encountered farm settings and equipment.*
  7. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) *These courses do not have stand-alone labs or separate field trips. Instead, the courses are taught so that students*

*can move from lecture to hands-on (in the lab, the outdoor classroom/greenhouses, or off-campus field trips) within the time frame of a lecture.*

8. Estimate of the typical costs for this course, including textbooks and other materials: CSA (Canadian Standards Association) approved footwear with minimum of protective toe cap and puncture protection (Grade 1 – green triangle) – costs \$150 to \$250. Half-face or half-mask respirator – cost \$50 to 100.



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 1987  
**REVISED COURSE IMPLEMENTATION DATE:** January 2024  
**COURSE TO BE REVIEWED** (six years after UEC approval): April 2029  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------|----|--|--|--|--|--|--|--------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> AGRI 183                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                            |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Course Full Title:</b> On-Farm Occupational Health and Safety                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Course Short Title:</b> On-Farm OH&S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Calendar Description:</b><br>Safety hazards associated with agricultural production in a variety of settings (barns, greenhouses, fields) are explored. Hands-on technical skills are obtained, including safe operation of tractors and skid steers and fall and fire prevention. Managerial responsibilities for young and new worker training, safety supervision, emergency preparedness, and work-place wellness are also examined.                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                                                            |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar</td> <td style="text-align: right;">30</td> </tr> <tr> <td>Experiential (work-integrated learning)</td> <td style="text-align: right;">15</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: right;"><b>45</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 30 | Experiential (work-integrated learning) | 15 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR cannot be awarded for this course because:<br>The emphasis of this course is to develop a safety mindset for the agricultural workplace. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 30        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| Experiential (work-integrated learning)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 15        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                  |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                        |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                         |    |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                          |  |

**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. Identify common equipment, fire, chemical, and ergonomic hazards associated with greenhouse, livestock, and field agricultural production.
2. Explain safe work procedures and requirements to mitigate occupational risk in various agricultural settings.
3. Demonstrate the correct use of personal protective and fire safety equipment.
4. Create safe work procedures, including standard operating procedures and team safety talks to mitigate specific occupational hazards (ladders, power tools and lockout, heat stress, noise) associated with farms.
5. Describe WHMIS regulations in Canada.
6. Operate a tractor and a skid steer safely at a basic competency level.
7. Explain biosafety and zoonotic disease control at the farm level.
8. Demonstrate safe animal handling.
9. Explain the roles of the Work Safe BC and AgSafe BC on the agricultural work site.
10. Identify common stressors, impacts and resources for mental health care for workers in agriculture.
11. Explain supervisor responsibilities in the workplace.
12. Develop an emergency response plan for an agricultural operation in B.C.

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

|                |     |              |     |   |
|----------------|-----|--------------|-----|---|
| Quizzes/tests: | 40% | Assignments: | 60% | % |
|                | %   |              | %   | % |

**Details:**

Assignments include check off demonstration by each student of their ability to safely use various pieces of equipment and written summaries of guest speakers and weekly topics.

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

**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 |                       | WorkSafe BC - <a href="https://www.worksafebc.com/en">https://www.worksafebc.com/en</a>                                                                                                                                                                                                                                                                        |      |
| 2. Online resource |                       | AgSafe BC - <a href="https://agsafebc.ca/">https://agsafebc.ca/</a>                                                                                                                                                                                                                                                                                            |      |
| 3. Online resource |                       | Government of BC. Emergency response plans and roles - <a href="https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/business-market-development/emergency-management/emergency-response-planning">https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/business-market-development/emergency-management/emergency-response-planning</a> |      |
| 4.                 |                       |                                                                                                                                                                                                                                                                                                                                                                |      |
| 5.                 |                       |                                                                                                                                                                                                                                                                                                                                                                |      |

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

CSA (Canadian Safety Association) approved footwear.

**Course Content and Topics**

- Tractor safety awareness
- Skid steer safety awareness
- Ladder safety awareness
- Fire extinguisher safety and education
- New worker orientation requirements
- "Mental health literacy" and farm safety
- WorkSafeBC and its role
- Lock out tag out education. Equipment de-energization
- Attaching up a 3-point linkage to tractor safely
- Tractor And skid steer practical evaluations
- WHMIS safety
- Safe handling of animals and medications and material in class review quiz
- Supervisor safety responsibilities
- PPE and fire safety equipment

**Memo for Course Changes**

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: October 16, 2022

Subject: Proposal for revision of **Agri 204 Introduction to Soils and Soil Fertility**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☒ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes reflect updates to knowledge and skills required for current and future agricultural practice. The course is an approved course for the BC Institute of Agrologists. The change in hours reflect how the course is delivered now within the semester with one meeting time a week (during two consecutive blocks).*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                                                                      | ILOs                                                                              |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 1. Understand and use the basic terminology associated with soils                             | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |
| 2. Describe the principles of soil formation                                                  | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |
| 3. Describe and apply basic quantitative skills quantify basic soil components and properties | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively  |



|                                                                                                                             |                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                             | 3. Use knowledge and skills proficiently                                                                                                |
| 4. Understand the main soil processes and soil-plant relationship                                                           | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                       |
| 5. Interpret key soil properties and indicators                                                                             | 1. Demonstrate information competency<br>4. Initiate inquiries and develop solutions to problems                                        |
| 6. Conduct and interpret a basic soil test analysis and measure basic soil properties                                       | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>8. Engage in respectful and professional practices |
| 7. Demonstrate the skills required to make field observations                                                               | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>8. Engage in respectful and professional practices |
| 8. Understand the importance of soil ecosystem functions and diversity in a cultural context and for indigenous communities | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>9. Contribute regionally and globally              |

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? None.

**NB: Questions 6 and 7 have been answered in a similar way for both Agri 204 and 311 as there is overlap in methodology in incorporating Indigenous knowledge and addressing EDI.**

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

*This course contributes to and aligns with UFV's Indigenization goals primarily in the terms of topic selection and curriculum delivery. Indigenous land-care practices, especially in terms of soil health have been recognized globally. For example, the Food and Agricultural Organization (FAO) of the UN declared 2015 the International Year of Soils, and much of the focus of that year (and beyond) was on soil stewardship practices of Indigenous communities around the world (more information here: <https://www.fao.org/soils-2015/news/news-detail/pt/c/282754/>). In both Agri 204 and Agri 311, this robust area of soil science is incorporated into each course with a specific learning outcome focused on soil concepts within Indigenous communities (i.e. LO 8 for Agri 204 and LO 5 for Agri 311). Further, hands-on, and land-based learning is integrated throughout both courses. These elements*

align with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#) specifically (with underlines for my emphasis)

- Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors
  - Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)
  - Learning recognizes the role of Indigenous knowledge.
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *Neither course has high stakes mid-terms or finals but instead assess learning weekly with in-class quizzes. We believe this is an EDI approach since it recognizes that exams are high stress, especially for highly technical content with lots of new terminology. Quizzes provided chances for all learners to gain confidence with the technical vocabulary and concepts, and their application, by assessing their learning more frequently. The large assignment in each course is scaffolded into smaller components and the entire assignment is based on hands-on activities. Students without access to land are able to use soil samples collected from UFV campuses.*
8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) *This course does not have a stand-alone lab. Instead, lab sessions are run in some weeks of the course, therefore lab access is needed for 2 to 3 weeks for this course, plus an additional week is needed for prepping of the lab. This course also needs access to greenhouse space. Field trips are run during the scheduled lecture time.*
9. Estimate of the typical costs for this course, including textbooks and other materials: *Lab coat \$30 (can be reused from other courses)*



ORIGINAL COURSE IMPLEMENTATION DATE: September 2009  
 REVISED COURSE IMPLEMENTATION DATE: January 2024  
 COURSE TO BE REVIEWED (six years after UEC approval): April 2029  
 Course outline form version: 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------------------------------|---|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> AGRI 204                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Introduction to Soils and Soil Fertility<br><b>Course Short Title:</b> Soils & Soil Fertility                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Science/Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                           |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br><p>An introductory soils course that highlights the physical, chemical, and biological properties of soils. All aspects of soil science including genesis and functions are explored. Emphasis is on healthy soils as production media for crop (fruit, vegetable, ornamental, and forage) production.</p> <p>Note: Field trips outside of class time will be required. Please check with the department for details.</p> |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                           |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                             |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                         |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number: <b>AGRI 153</b><br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                         |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar</td> <td>39</td> </tr> <tr> <td>Supervised laboratory hours (science lab)</td> <td>6</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td><b>45</b></td> </tr> </table>                                                                                               |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 39 | Supervised laboratory hours (science lab) | 6 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                           | 39        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Supervised laboratory hours (science lab)                                                                                                                                                                                                                                                                                                                                                                                                                 | 6         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                               |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                        |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                           |           | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |

AGRI 204

University of the Fraser Valley Official Undergraduate Course Outline

Page 2 of 2

**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. Apply the basic terminology associated with soils.
2. Describe the principles of soil formation.
3. Quantify basic soil components and properties using standard lab techniques.
4. Characterise the main soil processes and soil-plant relationship.
5. Interpret key soil properties and indicators.
6. Conduct and interpret a basic soil test analysis and measure basic soil properties.
7. Demonstrate the skills required to make field observations.
8. Summarise the importance of soil ecosystem functions and diversity in a cultural context and for Indigenous communities.

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

|                |     |              |     |  |   |
|----------------|-----|--------------|-----|--|---|
| Quizzes/tests: | 50% | Assignments: | 50% |  | % |
|                |     |              | %   |  | % |

**Details:**

Assignments:

Laboratory-based soil analysis project: 40%

Greenhouse assignment: 10%

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

**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. Textbook |                       | Digging into Canadian Soils<br>( <a href="https://openpress.usask.ca/soilscience/">https://openpress.usask.ca/soilscience/</a> ) | 2008 |
| 2.          |                       |                                                                                                                                  |      |
| 3.          |                       |                                                                                                                                  |      |
| 4.          |                       |                                                                                                                                  |      |
| 5.          |                       |                                                                                                                                  |      |

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

Simple calculator; transportation to field trips; lab coat

**Course Content and Topics**

- Origin and morphology of soils
- Soil ecosystem functions and cultural importance
- Soil horizons
- Clay minerals
- Soil physical properties
- Soil water
- Soil laboratory methods
- Soil chemical properties
- Soil biology
- Soil organic matter and composting

## Memo for Course Changes

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: November 13, 2022

Subject: Proposal for revision of **Agri 212 Introduction to On-farm Food Safety, Quality, and Security**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☒ Credits and/or total hours
- ☒ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes and course description reflect updates to knowledge and skills required for current and future agricultural practice. The course is an approved course for the BC Institute of Agrologists <https://www.bcia.com/sites/default/files/docs/resources/UFV%20Approved%20Courses%20Nov%2010%2C%202022.pdf>. The name change reflects an emphasis not just on commodity specific elements of food safety programs but on the broader principles that drive the development of on-farm food protection programs. The prerequisite change reflects the importance of students having some knowledge in the terminology and practices of production agriculture in order to succeed in the class. The change in hours reflect how the course is delivered now within the semester with one meeting time a week (during two consecutive blocks).*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                                                                 | ILOs                                                                             |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 1. Explain the principles used identify issues regarding food safety, quality, security, | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively |

|                                                                                                                                          |                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| biosecurity, and welfare for both livestock and crop production settings.                                                                |                                                                                                                                         |
| 2. Analyze the hazards, management practices and records associated with food safety, quality, security, biosecurity, and animal welfare | 2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently                                                     |
| 3. Implement applicable controls and programs to minimize risks to food safety quality, security, biosecurity, and animal welfare        | 3. Use knowledge and skills proficiently<br>4. Initiate enquiries and develop solutions to problems<br>5. Communicate effectively       |
| 4. Explain hazard analysis and critical control points (HACCP) principles                                                                | 1. Demonstrate information competency<br>5. Communicate effectively                                                                     |
| 5. Describe the implementation of different types of HACCP based-programs in various commodity areas                                     | 1. Demonstrate information competency<br>5. Communicate effectively                                                                     |
| 6. Use different types of monitoring methods to implement a risk assessment                                                              | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>8. Engage in respectful and professional practices |
| 7. Perform a mock verification audit                                                                                                     | 3. Use knowledge and skills proficiently<br>8. Engage in respectful and professional practices                                          |
| 8. Access online and in-person resources to gain information about on-farm HACCP-based programs.                                         | 1. Demonstrate information competency<br>5. Communicate effectively<br>8. Engage in respectful and professional practices               |

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? None.

**NB: Questions 6 and 7 have been answered in a similar way for Agri 183 and 212 as there is overlap in methodology in incorporating Indigenous knowledge and addressing EDI across the two courses.** In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy?](#) Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

*This course contributes to and aligns with UFV's Indigenization goals primarily in the terms of topic selection and curriculum delivery. The course is focused on safety and emphasizes the practices and actions individuals can take to reduce agriculture-related risks to self, employees, animals, environment and consumers. Identifying risks and implementing mitigation steps are critical outcomes for the course. Students also practice risk identification and use of specific skills through hands-on practice which is incorporated into the course, including mock audits of the barn and greenhouse facilities. These elements align with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#) specifically (with underlines for my emphasis)*

- *Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors*
  - *Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)*
  - *Learning involves recognizing the consequences of one's actions*
6. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *Hands-on learning is an intentional delivery method in our program as it makes technical language and content relatable and accessible to a wide range of learners. Agri 212 provides opportunities for students to learn in the on-campus barn and greenhouse, and on field trips. Pre-lecture quizzes give students time to learn technical language prior to class at their own pace. This is an important element for making course materials accessible to all learners including those who do not have English as their first language.*
  7. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) *These courses do not have stand-alone labs or separate field trips. Instead, the courses are taught so that students can move from lecture to hands-on (in the lab, the outdoor classroom/greenhouses, or off-campus field trips) within the time frame of a lecture.*
  8. Estimate of the typical costs for this course, including textbooks and other materials: *Field trip fuel costs \$50.*

**CWC comment and response:**

- Should this course have prerequisites rather than pre/corequisites? The current structure means that students might come into these with no prior AGRI courses. *The instructor has confidence that as long as students are enrolled in other Agri courses they will have the necessary background. The materials learned in 212 are quite unique - food safety audit processes - and so there is not foundational background content need.*



**ORIGINAL COURSE IMPLEMENTATION DATE:** January 2009  
**REVISED COURSE IMPLEMENTATION DATE:** January 2024  
**COURSE TO BE REVIEWED** (six years after UEC approval): April 2029  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----|-----------------------------------------|----|---------------------------|---|--|--|--|--|--------------------|-----------|
| <b>Course Code and Number:</b> AGRI 212                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                            |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Course Full Title:</b> Principles of On-Farm Food Protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Course Short Title:</b> On-Farm Food Protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                           |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Calendar Description:</b><br><p>Principles of hazard analysis and critical control points (HACCP) are explored in depth to demonstrate the development of third-party audit programs for on-farm food safety and other aspects of production. Implementation of these types of programs including record keeping tools, management practices, and HACCP training methods will be demonstrated and used by students in hands-on practice in the on-campus greenhouses and barn.</p> <p>Note: Field trips outside of class time will be required. Please check with the department for details.</p>                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6 credits of Agriculture.                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number: <b>AGRI 121</b><br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                                                                                                                                                    | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 80%;">Lecture/seminar</td> <td style="width: 20%; text-align: center;">30</td> </tr> <tr> <td>Experiential (work-integrated learning)</td> <td style="text-align: center;">12</td> </tr> <tr> <td>Experiential (field trip)</td> <td style="text-align: center;">3</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Lecture/seminar | 30 | Experiential (work-integrated learning) | 12 | Experiential (field trip) | 3 |  |  |  |  | <b>Total hours</b> | <b>45</b> |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| Experiential (work-integrated learning)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| Experiential (field trip)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>45</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |



**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. Explain the principles used to identify issues regarding food safety, quality, security, biosecurity, and welfare for both livestock and crop production settings.
2. Analyse the hazards, management practices and records associated with food safety, quality, security, biosecurity, and animal welfare.
3. Implement applicable controls and programs to minimize risks to food safety quality, security, biosecurity, and animal welfare.
4. Explain hazard analysis and critical control points (HACCP) principles.
5. Describe the implementation of different types of HACCP based programs in various commodity areas.
6. Use different types of monitoring methods to implement a risk assessment.
7. Perform a mock verification audit.
8. Access online and in-person resources to gain information about on-farm HACCP-based programs.

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

|              |     |             |     |                |     |
|--------------|-----|-------------|-----|----------------|-----|
| Assignments: | 30% | Final exam: | 15% | Quizzes/tests: | 45% |
| Project:     | 10% |             | %   |                | %   |

**Details:**

**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, guest speakers, website searches/commodity producer guides review, case studies, field trips, labs.

**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. Other           |                       | Canadian Food Inspection Agency. Food Safety Recognition Program<br><a href="https://inspection.canada.ca/food-safety-for-industry/archived-food-guidance/safe-food-production-systems/food-safety-enhancement-program/recognition-program/eng/1299860970026/1299861042890">https://inspection.canada.ca/food-safety-for-industry/archived-food-guidance/safe-food-production-systems/food-safety-enhancement-program/recognition-program/eng/1299860970026/1299861042890</a> |      |
| 2. Online resource |                       | Government of Alberta. HACCP Principles Explained<br><a href="https://www.alberta.ca/hazard-analysis-critical-control-point-program-planning.aspx">https://www.alberta.ca/hazard-analysis-critical-control-point-program-planning.aspx</a>                                                                                                                                                                                                                                    |      |
| 3. Online resource |                       | Dairy Farmers of Canada. proAction Manual<br><a href="http://verifiedbeefproductionplus.ca/files/producer-resources/VBP_Producer_Manual_combined_V_1.6_and_V_7.8_Feb_13_2019.pdf">http://verifiedbeefproductionplus.ca/files/producer-resources/VBP_Producer_Manual_combined_V_1.6_and_V_7.8_Feb_13_2019.pdf</a>                                                                                                                                                              |      |
| 4. Online resource |                       | Canada GAP. Greenhouse Manual <a href="https://www.canadagap.ca/wp-content/uploads/English/Manuals/Version-8.0/CORRECTED-CanadaGAP-Greenhouse-Manual-8.0-2020-ENG.pdf">https://www.canadagap.ca/wp-content/uploads/English/Manuals/Version-8.0/CORRECTED-CanadaGAP-Greenhouse-Manual-8.0-2020-ENG.pdf</a>                                                                                                                                                                     |      |
| 5.                 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |

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

Appropriate, safe clothing for field trips; transportation for field trips.

**Course Content and Topics**

1. Introduction
  - A. History of food protection on-farm and its interface, i.e., how the various types of programs have evolved, and what incidences have occurred to make them become the level they are at today
  - B. Compare and contrast the various issues/programs to clarify what makes them different and yet similar
  - C. Explore the program recognition process and how that impacts their credibility.
  - D. Using all forms of media (e.g., internet, printed press, etc.) to demonstrate how widespread and public these issues can be and how these programs help mitigate risk for the farm and agri-food industry and ensure future farm sustainability and food security
2. HACCP – Using on-farm commodity programs to demonstrate how HACCP principles are used
  - A. Introduction to the principles of HACCP in general, and HACCP-based farm production principles
    - a. History of HACCP and HACCP-based programs
    - b. Purpose of these programs

- c. Status of HACCP-based programs now in use in BC
  - B. Identification of potential hazards (Hazard Analysis)
    - a. Identification of the hazards
    - b. Why they are hazards
    - c. Potential origin of hazards in food from the farm, during processing, during shipping, by consumers
    - d. Site schematics/verification – how it impacts potential hazards
    - e. Case studies
  - C. Good Agricultural Practices (GAPs) – understanding program prerequisites (GAPs) and how they are the foundation of all on-farm programs using actual commodity examples, as they relate to:
    - a. Premise
    - b. Equipment
    - c. Transportation and storage
    - d. Personnel training and hygiene
    - e. Sanitation and pest control
    - f. Recall
  - D. Critical Control Point (CCPs) determination:
    - a. Identification of on-farm CCPs specific using examples of various commodities
    - b. Determination of what makes a good CCP
    - c. Differentiation between CCPs and Level B GAPs
  - E. Critical limits: definition, examples and determination
  - F. Monitoring methods: using case studies explore what works and what doesn't:
    - a. Standard operating procedures
    - b. Impact of frequency/timing
    - c. Ensuring credibility / accountability and why a food safety culture is important
    - d. Documentation – variation of all forms, benefits, and importance to HACCP
  - G. Deviation / corrective action procedures: as applied preventatively and as a corrective control
  - H. Verification procedures: why this is important for long-term program success and program validity/credibility
3. Food security / animal care / biosecurity / environmental stewardship
- A. Define, compare contrast how these issues (and where applicable programs) utilized HACCP to control risk, and ensure farm sustainability and food security. Evaluate cost/risk of not addressing these issues to industry and society in general.
  - B. Demonstrate issues/applications with real examples (food security – e.g., flood/earthquake preparedness and its impact) and food security/biosecurity programs (e.g., impact of a regional or even national disease outbreak). Demonstrate how other programs such as traceability programs (e.g., premise identification) interact and support these programs.
4. Audit process
- A. Understand the audit process, and its importance to program credibility
  - B. Audit standards – how they were derived and what makes them credible
  - C. Audit procedures - what makes a good audit/auditor
  - D. Preparing for an audit from both a producer and auditor perspective: using case studies and real experience the students will perform audits in both greenhouse and/or livestock settings

## Memo for Course Changes

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: October 16, 2022

Subject: Proposal for revision of **Agri 220 Plants in the Landscape**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☒ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes and course description reflect updates to knowledge and skills required for current and future agricultural practice. The course is an approved course for the BC Institute of Agrologists. Students who have taken this course are able to take the challenge exam for ITA Standardized Horticulturalist Foundation Exam. The change in hours reflect how the course is delivered now within the semester with one meeting time a week (during two consecutive blocks). The pre/coreq of Agri 124 ensures that students have the fundamental plant knowledge to be successful in Agri 220. Most students already take the two courses in a sequence.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                                                                                                                        | ILOs                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 1. Identify using common name, latinate binomial name, and when applicable Halq'eméylem name 100 commonly used landscape and ornamental plants. | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |

|                                                                                                                                                                                                 |                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2. Describe appropriate landscape use, environmental requirements, and common problems of these plants.                                                                                         | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                    |
| 3. Explain the significance of the terms hybrid and "cultivar".                                                                                                                                 | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                    |
| 4. Employ botanical terminology and the taxonomic naming system.                                                                                                                                | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                    |
| 5. Explain the taxonomic hierarchy and its place / development in the history of science.                                                                                                       | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently                                                         |
| 6. Identify common name, latinate binomial name, and Halq'eméylem or other First Language name 20 to 30 BC native plants and discuss their historical and contemporary use by Indigenous people | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently<br>4. Engage in respectful and professional practices   |
| 7. Explain the role that ornamental plantings have played in the introduction of invasive plant species to North America                                                                        | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>4. Initiate enquiries and develop solutions to problems<br>9. Contribute regionally and globally |
| 8. Identify using common name and latinate binomial name 5 invasive plants that originated as ornamental landscape plants                                                                       | 3. Use knowledge and skills proficiently<br>4. Initiate enquiries and develop solutions to problems                                                                                  |
| 9. Select appropriate plants for different landscaping goals - e.g. wildlife gardens, shade gardens, xeriscaping, fire smart gardening.                                                         | 1. Demonstrate information competency<br>4. Engage in respectful and professional practices<br>5. Communicate effectively                                                            |

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A

5. Which program areas have been consulted about the change(s)? None.

**NB: Questions 6 and 7 have been answered in a similar way for Agri 123, 124, 129 and 220 as there is overlap in methodology in incorporating Indigenous knowledge and addressing EDI across the four courses.**

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#). Agri 123, 124,

129 and 220 represent foundational knowledge courses for the various horticulture related Agriculture Technology programs (certificate, diploma, and degree). As the focus of these courses is on plants there are a number of ways to authentically recognize Indigenous knowledge both in terms of content and delivery.

- a. *Examples: Indigenous knowledge is incorporated into delivery when hands-on activities are required by selecting plants that are important for local First Nations for the activity. For example, when practicing hardwood cuttings western red cedar, Thuja plicata, (xpá:yelhp in Halq'eméylem), collected from campus, is one of the plants students propagate. When demonstrating the difference between simple and compound leaves – salmonberry Rubus spectabilis (elíle) and hazelnut Corylus cornuta (th'itsemelhp) leaves are used. Salmonberry (elíle) is provided as an example of a perennial, dicot, shrub that produces aggregate fruit. Using plants important to local First Nations provides a chance for instructors to not only illustrate technical concepts but also to share information with students about the historical and contemporary uses of these plants.*
- b. *Names: When available the Halq'eméylem name is provided along with the common and scientific Latin name for a plant species in all of these courses.*
- c. *Learning Outcomes: Specific learning outcomes about plants that have important uses in local First Nations culture are explored in Agri 220 (LO 6) and Agri 124 (LO 10).*

*All of our plant-based courses involve going outside to collect and observe plants growing around the CEP campus – both in the grounds and in the Outdoor Classroom, thus we are learning from and about the place that the campus is located.*

*These elements align with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#) specifically (with underlines for my emphasis)*

- *Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors*
  - *Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)*
  - *Learning recognizes the role of Indigenous knowledge.*
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *All of these courses have a high degree of hands-on learning as demonstrated by the large number of experiential hours. Hands-on learning is an intentional delivery method in our program as it makes technical language and content relatable and accessible to a wide range of learners. All plant walks or field trips occur either on campus or at field trip locations that are within Abbotsford or Chilliwack and accessible by public transit.*
  8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) *Field trips for*

*Agri 220 are done during schedule lecture times. Most field trips or plant walks are done on campus, with off campus field trips located within Abbotsford or Chilliwack, and are accessible by transit.*

9. Estimate of the typical costs for this course, including textbooks and other materials: *Field trip costs (fuel) are approximately \$50, with all field trips within 30km of CEP campus.*

**CWC comment and response:**

- Should this course have prerequisites rather than pre/corequisites? The current structure means that students might come into these with no prior AGRI courses.  
*Historically the majority of students have been successful in AGRI 220 with AGRI 124 as either a pre- or co-requisite.*



ORIGINAL COURSE IMPLEMENTATION DATE: September 1987  
 REVISED COURSE IMPLEMENTATION DATE: January 2024  
 COURSE TO BE REVIEWED (six years after UEC approval): April 2029  
 Course outline form version: 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------|----|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> AGRI 220                                                                                                                                                                                                                                                                                                                                                             |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                            |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Plants in the Landscape<br><b>Course Short Title:</b> Plants in the Landscape                                                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                  |           | <b>Department (or program if no department):</b>                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Identification, use, and maintenance of herbaceous and woody plants in the landscape will be explored in this class. Site selection and individual plant growing requirements will be emphasized.<br><br>Note: Field trips outside of class time will be required. Please check with the department for details.                                                    |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                     |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                       |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                   |           | AGRI 124.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> ( <i>Cannot be taken for additional credit.</i> )<br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i> |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar</td> <td>25</td> </tr> <tr> <td>Experiential (field trip)</td> <td>20</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td><b>Total hours</b></td> <td><b>45</b></td> </tr> </table>                                                  |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 25 | Experiential (field trip) | 20 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                     | 25        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Experiential (field trip)                                                                                                                                                                                                                                                                                                                                                                           | 20        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                  | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                         |           | <b>Transfer Credit</b> ( <i>See <a href="#">bctransferguide.ca</a>.</i> )<br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                      |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                          |           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                             |           | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |

AGRI 220

University of the Fraser Valley Official Undergraduate Course Outline

Page 2 of 2

**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. Identify using common name, latinate binomial name, and when applicable Halq'eméylem name 100 commonly used landscape and ornamental plants.
2. Describe appropriate landscape use, environmental requirements and common problems of these plants.
3. Explain the significance of the terms "hybrid" and "cultivar".
4. Employ botanical terminology and the taxonomic naming system.
5. Explain the taxonomic hierarchy and its place / development in the history of science.
6. Identify common name, latinate binomial name, and Halq'eméylem or other First Language name 20 to 30 BC native plants and discuss their historical and contemporary use by Indigenous people.
7. Explain the role that ornamental plantings have played in the introduction of invasive plant species to North America.
8. Identify using common name and latinate binomial name 5 invasive plants that originated as ornamental landscape plants.
9. Select appropriate plants for different landscaping goals - e.g. wildlife gardens, shade gardens, xeriscaping, fire smart gardening.

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

|                |     |             |     |              |     |
|----------------|-----|-------------|-----|--------------|-----|
| Quizzes/tests: | 50% | Final exam: | 40% | Assignments: | 10% |
|                | %   |             | %   |              | %   |

**Details:**

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

**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 |                       | First Voices Halq'eméylem Home Page<br>( <a href="https://www.firstvoices.com/explore/FV/sections/Data/Salish/Halkomelem/Halq'em%C3%A9ylem">https://www.firstvoices.com/explore/FV/sections/Data/Salish/Halkomelem/Halq'em%C3%A9ylem</a> )                                                                                                                                                                      |      |
| 2. Online resource |                       | BC Invasive Species ( <a href="https://bcinvasives.ca/take-action/identify/">https://bcinvasives.ca/take-action/identify/</a> )                                                                                                                                                                                                                                                                                 |      |
| 3. OER book        |                       | Red Seal Landscape Horticulturist Identify Plants and Plant Requirements<br>( <a href="https://open.bccampus.ca/browse-our-collection/find-open-textbooks/?uuid=4c5f9ce3-4238-4576-94cd-e02710b8fc4a&amp;contributor=&amp;keyword=&amp;subject=">https://open.bccampus.ca/browse-our-collection/find-open-textbooks/?uuid=4c5f9ce3-4238-4576-94cd-e02710b8fc4a&amp;contributor=&amp;keyword=&amp;subject=</a> ) |      |
| 4.                 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                 |      |
| 5.                 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                 |      |

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

Approximately \$50 required to cover required field trips.

**Course Content and Topics**

- Binomial naming system, leaves, zones
- Inflorescences, sexual organs of angiosperms
- Fruits
- Dogwoods and heathers
- Maples and oaks
- Conifers
- Rhododendrons, magnolias, plums, and cherries
- Autumn colour
- Ferns, shade gardens
- Xeriscaping and fire smart gardening, ornamental grasses
- Winter gardens, hamamelis



**Memo for Course Changes**

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: Dec 12, 2022

**Subject: Proposal for revision of Agri 248 Enterprise Project II**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☒ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *An update of learning outcomes and calendar description to reflect skills and knowledge needed in operating/managing a farm business. The assessment has been modified to reduce the weighting on the oral presentation which can be a barrier to success for students. The course is an approved course for the BC Institute of Agrologists.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                                                    | ILOs                                                                                                                         |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| 1. Complete Income statement projections for Year 2 to 5                    | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently |
| 2. Stress test income statement and cash flow projections in multiple areas | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently |
| 3. Develop a marketing plan that includes a social media strategy           | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently |

|                                                                                                                  |                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4. Compile all relevant information from AGRI 247 and 348 into the business plan                                 | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>5. Communicate effectively<br>6. Pursue self-motivated and self-reflective learning |
| 5. Develop a presentation on the business plan                                                                   | 1. Demonstrate information competency<br>5. Communicate effectively<br>6. Pursue self-motivated and self-reflective learning                                            |
| 6. Reflect on presentation feedback, from class and mentors, and incorporate comments into a final business plan | 6. Pursue self-motivated and self-reflective learning<br>8. Engage in respectful and professional practices                                                             |

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? None.
6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

*This course contributes to and aligns with UFV's Indigenization goals primarily in the mode of delivery. The course is designed so that each week has built in time for students to work on materials and then share with class and instructor to trouble shoot problems. This process of lecture, in-class work time, sharing builds a learning community. Mentors (including producers, ministry staff and financial lenders) share knowledge and stories that emphasize course concepts. These elements of course design and delivery align with Indigenization principles, including (from First Peoples Principles of Learning - [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#)) (with underlines by me for emphasis)*

- *Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)*
  - *Learning involves generational roles and responsibilities.*
  - *Learning is embedded in memory, history, and story*
  - *Learning involves patience and time*
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *This course and its prerequisite are very much aligned with the goals of EDI. The agricultural student body is diverse, and helping each student develop a tangible plan that could enable them to enter into farming, regardless of access to*

*capital or land, is a fundamental goal of the Agriculture Technology diploma. Students are exposed to numerous resources and stories that recognize the equity challenges of new entrant producers. Each student develops a plan that is unique to their circumstances, interests, and abilities. Students with very modest plans (e.g., under 0.5 acre) can move through the course Learning Outcomes as proficiently as those with larger scale plans (e.g. 200 head beef operation). The scaffolding of the business plan content starting in Agri 247 and continuing through the first half of Agri 348 allows students to work through the materials in manageable pieces.*

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.)
9. Estimate of the typical costs for this course, including textbooks and other materials: *There are no costs associated with this course.*



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2008  
**REVISED COURSE IMPLEMENTATION DATE:** January 2024  
**COURSE TO BE REVIEWED** (six years after UEC approval): April 2029  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|----|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> AGRI 248                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Enterprise Project: Part II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b> Enterprise Project: Part II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Students will stress test their financials for agribusiness operations developed in AGRI 247, and complete financial projections for years two to five. Marketing plans, including social media strategy, will be finalized. Students will compile their revised background research and information into their business plan, and present the business plan to the class and a panel of external agricultural mentors.<br><br>Note: Students are expected to complete AGRI 247 and AGRI 248 in the same academic year. |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           | C or better in AGRI 247.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number: <b>AGRI 242B</b><br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                                                                      |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar</td> <td style="text-align: center;">15</td> </tr> <tr> <td>Tutorials/workshops</td> <td style="text-align: center;">30</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table>                                                                        |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 15 | Tutorials/workshops | 30 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 15        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 30        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                        |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                  |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |

**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. Complete Income statement projections for years two to five.
2. Stress test income statement and cash flow projections in multiple areas.
3. Develop a marketing plan that includes a social media strategy.
4. Compile production plan, market research, marketing plan, human resources plan, operations, troubleshooting and financial planning and risk assessment into a single business plan.
5. Develop a presentation on the business plan.
6. Reflect on presentation feedback, from class and mentors, and incorporate comments into a final business plan.

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

|              |     |          |     |  |   |
|--------------|-----|----------|-----|--|---|
| Assignments: | 45% | Project: | 55% |  | % |
|              | %   |          | %   |  | % |

**Details:**

Assignments include an oral presentation (10%).

Project is a written business plan consisting of sections on the production plan, market research, marketing plan, human resources plan, operations, troubleshooting, financial planning, and risk assessment.

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

**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 Ministry of Agriculture | Running an agrifood or farm business | 2022 |
| 2.                 |                            |                                      |      |
| 3.                 |                            |                                      |      |
| 4.                 |                            |                                      |      |
| 5.                 |                            |                                      |      |

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

- Developing sensitivity analysis, risk mitigation strategies and marketing plan
- Complete a detailed written business plan prepared in a professional business format
- Prepare and deliver a professional PowerPoint presentation outlining the venture and identifying the key success and risk factors
- Presentation to an outside expert panel

**Memo for Course Changes**

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: November 14, 2022

**Subject: Proposal for revision of Agri 272 Agriculture Seminar Series**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☒ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes and course description reflect updates to knowledge and skills required for current and future agricultural practice. The change in hours reflect how the course is delivered now within the semester with one meeting time a week (during two consecutive blocks).*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                                                                                                                                      | ILOs                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Effectively Communicate agricultural and scientific issues verbally to a non-specialist, specialist, and policy-makers audiences                           | 1. Demonstrate information competency<br>5. Communicate effectively                                                                                     |
| 2. Utilize non-traditional communication approaches including social media posts and infographics to communicate specialist information to the general public | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>5. Communicate effectively<br>9. Contribute regionally and globally |

|                                                                                                                                                  |                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. Understand some topical and relevant agricultural issues                                                                                      | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>6. Pursue self-motivated and self-reflective learning                |
| 4. Summarize complex agricultural and scientific trends, topics and methods in written and verbal formats                                        | 2. Analyze critically and imaginatively<br>5. Communicate effectively                                                                                    |
| 5. Recognize different Ways of Knowing and Perspectives which are relevant to modern agricultural systems                                        | 2. Analyze critically and imaginatively<br>4. Initiate inquiries and develop solutions to problems<br>8. Engage in respectful and professional practices |
| 6. Formulate succinct and appropriate questions regarding agricultural research, on-farm practices, and distribution of agricultural commodities | 1. Demonstrate information competency<br>4. Initiate inquiries and develop solutions to problems                                                         |
| 7. Perform unbiased and replicable reviews of the scientific literature                                                                          | 2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently                                                                      |
| 8. Evaluate the quality of information sources                                                                                                   | 2. Analyze critically and imaginatively<br>8. Engage in respectful and professional practices                                                            |
| 9. Develop and deliver constructive feedback to peers in a group setting                                                                         | 5. Communicate effectively.<br>7. Engage in collaborative leadership<br>8. Engage in respectful and professional practices                               |

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? None.
6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

*This course contributes to and aligns with UFV's Indigenization goals primarily in the terms of topic selection and curriculum delivery. The course focuses on different ways of knowing to gain an understanding of perspectives around topical agricultural issues. Indigenous perspectives around many elements of food production, including land access, food sovereignty, biopiracy are all*

*examples of topics that are broadly relevant to agriculture. The online format enables participation of guest speakers from across the globe and this broadens the perspectives that students are exposed to in the course. Focusing on Indigenous and other ways of knowing aligns with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#) specifically (with underlines for my emphasis)*

- *Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)*
  - *Learning recognizes the role of Indigenous knowledge.*
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *This course consists of small assessments that allow students to demonstrate their learning in different methods – e.g., visually, through social media posts, through oral presentations. Further, the selection of guest speakers is intentional and ensures representation that is reflective of the diversity of the UFV community. Lastly, there are a set number of weeks where students can select topics for seminar based on their interests.*
8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) *This course is delivered online to increase access to guest speakers from around the world.*
9. Estimate of the typical costs for this course, including textbooks and other materials: \$0





**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2008  
**REVISED COURSE IMPLEMENTATION DATE:** January 2024  
**COURSE TO BE REVIEWED** (six years after UEC approval): April 2029  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--|--|--|--|--|--|--|--|--------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> AGRI 272                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                               |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Course Full Title:</b> Agriculture Seminar Series<br><b>Course Short Title:</b> Agriculture Seminar Series                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Faculty:</b> Faculty of Science/Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                              |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Calendar Description:</b><br>Through the lens of guest speakers with diverse ways of knowing, knowledge systems, backgrounds, and experiences, students will be challenged to consider diverse perspectives in agriculture and to identify, describe, and reflect on the opportunities and challenges these present to agricultural systems. Students will gain skills in written and oral communications as well as group and collaborative work, and will deepen their understanding of agricultural systems.<br><br>Note: Field trips outside of class time may be required. Please check with the department for details. |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number: <b>AGRI 207, AGRI 270</b><br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                                                                                                                                      |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Online only</b><br>Expected frequency: <b>Annually/Annually</b><br>Maximum enrolment (for information only): <b>25</b> |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Typical Structure of Instructional Hours</b><br><table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Lecture/seminar</td> <td style="width: 20%; text-align: center;">45</td> </tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table>                                                                                                                                              |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 45 |  |  |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR cannot be awarded for this course because:<br>Seminar content changes from year-to-year and focuses on new information; it is not likely that PLAR can be awarded. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 45        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                             |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                                |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                             |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                               |    |  |  |  |  |  |  |  |  |                    |           |                                                                                                                                                                                                                                    |  |

**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. Effectively communicate agricultural and scientific issues verbally to non-specialist, specialist, and policy-makers audiences.
2. Utilize non-traditional communication approaches including social media posts and infographics to communicate specialist information to the general public.
3. Summarize complex agricultural and scientific trends, topics, and methods in written and verbal formats.
4. Recognize different ways of knowing and perspectives which are relevant to modern agricultural systems.
5. Formulate succinct and appropriate questions regarding agricultural research, on-farm practices, and distribution of agricultural commodities.
6. Perform unbiased and replicable reviews of the scientific literature.
7. Evaluate the quality of information sources.
8. Develop and deliver constructive feedback for peers in a group setting.

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

|              |      |  |  |
|--------------|------|--|--|
| Assignments: | 100% |  |  |
|              |      |  |  |

**Details:**

Individual seminar: 40%  
 Peer review: 20%  
 Social media post: 10%  
 Group/panel discussion: 20%  
 Literature search: 10%

**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.)*

Guest lecturers, presentations, discussions, problem-solving case(s).

**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. Other           |                                    | Current Publications posted weekly in alignment with guest lecture schedule                                        |      |
| 2. Online resource | Bergstrom, Carl T and Jevin D West | Calling Bullshit B08191DV5T<br>( <a href="https://www.callingbullshit.org/">https://www.callingbullshit.org/</a> ) |      |
| 3.                 |                                    |                                                                                                                    |      |
| 4.                 |                                    |                                                                                                                    |      |
| 5.                 |                                    |                                                                                                                    |      |

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

Suitable clothing/footwear for on-farm problem-solving assignment(s).

**Course Content and Topics**

1. Communication strategies and methods (infographics, oral presentations, social media posts, research reports and debates)
2. Additional course content varies with the semester and is reflective of current topics and developments relative to local, national and global agriculture. Examples of guest lecture topics from previous offerings include:
  - Indigenous cropping system/agroecology
  - Stó:lō foodways
  - Justice in agriculture
  - Cellular agriculture
  - Climate risks cyanobacteria and cyanobacterial toxins in agriculture and aquaculture
  - Indoor/vertical ag and industry
  - Mental health in agriculture

**Memo for Course Changes**

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: October 16, 2022

Subject: Proposal for revision of **Agri 311 Sustainable Soil Management**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes reflect updates to knowledge and skills required for current and future agricultural practice. The course is an approved course for the BC Institute of Agrologists. The change in prerequisite reflects the requirements for students to have taken the 200-level course.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                                              | ILOs                                                                                                                         |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| 1. Assess and describe soil properties in the field                   | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                            |
| 2. Classify and interpret the role of soils in a specific environment | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently |
| 3. Retrieve and use soil information from a variety of sources        | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                            |

|                                                                                                                                   |                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                   | 4. Initiate inquiries and develop solutions to problems                                                                                                                              |
| 4. Identify soil health hazards and develop preventive measures                                                                   | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>4. Initiate inquiries and develop solutions to problems                                         |
| 5. Critically discuss new and traditional concepts of soil health, including indigenous soil health care practices                | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>4. Initiate inquiries and develop solutions to problems<br>9. Contribute regionally and globally |
| 6. Explain impact of land use and management decisions on agricultural productivity, land degradation and soil ecosystem services | 5. Communicate effectively<br>8. Engage in respectful and professional practices                                                                                                     |
| 7. Understand the relationship of soil management to government and private sector policies                                       | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>8. Engage in respectful and professional practices                                              |
| 8. Describe the impact of soils on the climate                                                                                    | 1. Demonstrate information competency<br>4. Initiate inquiries and develop solutions to problems<br>9. Contribute regionally and globally                                            |

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? None.

**NB: Questions 6 and 7 have been answered in a similar way for both Agri 204 and 311 as there is overlap in methodology in incorporating Indigenous knowledge and addressing EDI.**

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

*This course contributes to and aligns with UFV's Indigenization goals primarily in the terms of topic selection and curriculum delivery. Indigenous land-care practices, especially in terms of soil health have been recognized globally. For example, the Food and Agricultural Organization (FAO) of the UN declared 2015 the International Year of Soils, and much of the focus of that year (and beyond) was*

on soil stewardship practices of Indigenous communities around the world (more information here: <https://www.fao.org/soils-2015/news/news-detail/pt/c/282754/>). In both Agri 204 and Agri 311, this robust area of soil science is incorporated into each course with a specific learning outcome focused on soil concepts within Indigenous communities (i.e., LO 8 for Agri 204 and LO 5 for Agri 311). Further, hands-on, and land-based learning is integrated throughout both courses. These elements align with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#) specifically (with underlines for my emphasis)

- Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors
  - Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)
  - Learning recognizes the role of Indigenous knowledge.
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *Neither course has high stakes mid-terms or finals but instead assess learning weekly with in-class quizzes. We believe this is an EDI approach since it recognizes that exams are high stress, especially for highly technical content with lots of new terminology. Quizzes provided chances for all learners to gain confidence with the technical vocabulary and concepts, and their application, by assessing their learning more frequently. The large assignment in each course is scaffolded into smaller components and the entire assignment is based on hands-on activities. Students without access to land are able to use soil samples collected from UFV campuses.*
  8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) *This course does not have a stand-alone lab. Instead, lab sessions are run in some weeks of the course, therefore lab access is needed for 2 to 3 weeks for this course, plus an additional week is needed for prepping of the lab. This course also needs access to greenhouse space. Field trips are run during the scheduled lecture time.*
  9. Estimate of the typical costs for this course, including textbooks and other materials: *Lab coat \$30 (can be reused from other courses); field trip costs (fuel) are approximately \$50, with all field trips within 30km of CEP campus.*



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2009  
**REVISED COURSE IMPLEMENTATION DATE:** January 2024  
**COURSE TO BE REVIEWED** (six years after UEC approval): April 2029  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------|---|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> AGRI 311                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                            |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Sustainable Soil Management                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b> Sustainable Soil Management                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                           |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Agricultural management impacts soil quality. This course presents current concepts to assess, protect, and enhance the health and productivity of soils and the delivery of soil ecosystem services in socio-economic and cultural contexts.<br><br>Note: Field trips outside of class time will be required. Please check with the department for details.                                                                                                           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | AGRI 204.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number: <b>AGRI 211</b><br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                      |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td>Lecture/seminar</td> <td style="text-align: center;">39</td> </tr> <tr> <td>Experiential (field trip)</td> <td style="text-align: center;">6</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 39 | Experiential (field trip) | 6 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 39        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Experiential (field trip)                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 6         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                            |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                        |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                           |   |  |  |  |  |  |  |                    |           |                                                                                               |  |

**AGRI 311**
**University of the Fraser Valley Official Undergraduate Course Outline**
**Page 2 of 2**
**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. Assess and describe soil properties in the field.
2. Classify and interpret the role of soils in a specific environment.
3. Retrieve and use soil information from a variety of sources.
4. Identify soil health hazards and develop preventive measures.
5. Critically discuss new and traditional concepts of soil health, including indigenous soil health care practices.
6. Explain impact of land use and management decisions on agricultural productivity, land degradation and soil ecosystem services.
7. Summarise the relationship of soil management to government and private sector policies.
8. Describe the impact of soils on the climate.

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

|              |     |                |     |   |
|--------------|-----|----------------|-----|---|
| Assignments: | 50% | Quizzes/tests: | 50% | % |
|              | %   |                | %   | % |

**Details:**

Assignments:

Soil profile project: 40%

Field trip assignments: 10%

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**
**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. Textbook | Magdof, Fred and Harold van Es | Building Soils for Better Crops<br>( <a href="https://www.sare.org/resources/building-soils-for-better-crops/">https://www.sare.org/resources/building-soils-for-better-crops/</a> ) | 2021 |
| 4. Textbook |                                | Land Capability Classification for Agriculture in BC                                                                                                                                 |      |
| 5.          |                                |                                                                                                                                                                                      |      |

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

Simple calculator; transportation to field trips; lab coat.

**Course Content and Topics**

- Key concepts of soil science
- Risks of soil nutrient management
- Nitrogen cycling and behavior
- Phosphorus and potassium cycling and behavior
- Canadian soil classification system, FAO WRB, US soil taxonomy
- Forms of erosion
- Salinization, acidification, soil compaction, soil contamination
- Land capability classification for agriculture in BC
- New and traditional concepts of soil health; management for carbon sequestration; regenerative agricultural practices and precision farming

**Memo for Course Changes**

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: November 13, 2022

Subject: Proposal for revision of **Agri 321 Vegetable Crop Production: Science & Practice;**  
Correction to **AGRI 323**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes and course description reflect updates to knowledge and skills required for current and future agricultural practice. The change in course title reflects the emphasis on field production and separates the course content from Agri 324 Greenhouse Production: Science and Practice. The course is an approved course for the BC Institute of Agrologists. The changes do not impact the focus of this course on agrology. The change in pre/corequisite reflects that some students may take this class concurrently with AGRI 124.*

**Note:** The prerequisite changes to AGRI 323 that were approved by UEC on Feb. 24, 2023 included an error that has been traced to a version control issue. The version that was approved by SFC and submitted to CWC only included AGRI 124 as a pre/corequisite, while the version that was approved by UEC **also** included “30 university-level credits” as a prerequisite. A revised outline for AGRI 323 is attached, with pre/corequisites that are the same as AGRI 321 (no prerequisites, AGRI 124 pre/corequisite).



3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                                                                                                                                   | ILOs                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Describe requirements to successfully grow field vegetable crops of economic importance to British Columbia                                             | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                                                                             |
| 2. Design and implement appropriate farm management practices and growing systems for field vegetable crops                                                | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently                                                                                                                  |
| 3. Evaluate soil tests to determine soil amendments and improvements for optimum plant growth                                                              | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently<br>4. Initiate inquiries and develop solutions to problems                                                       |
| 4. Evaluate and select appropriate varieties of vegetable crops                                                                                            | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently<br>4. Initiate inquiries and develop solutions to problems                                                       |
| 5. Create appropriate plan for management of biotic (weeds, pathogens, invertebrates) and abiotic (cold, drought, etc.) stresses affecting vegetable crops | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently<br>4. Initiate inquiries and develop solutions to problems<br>8. Engage in respectful and professional practices |
| 6. Analyze plants nutrient status and apply appropriate fertilizer and application methods                                                                 | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently                                                                                                                  |
| 7. Determine appropriate timing and techniques for harvest of vegetable crops                                                                              | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>8. Engage in respectful and professional practices                                                                                                       |
| 8. Outline appropriate postharvest handling, and marketing of major vegetable crops                                                                        | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently                                                                                                                  |
| 9. Explain historical and contemporary uses of the roots, shoots and leaves of native plants by Indigenous communities                                     | 1. Demonstrate information competency<br>9. Contribute regionally and globally                                                                                                                                                                |

|                                                                                                               |                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10. Discuss practices to adapt to and mitigate contribution to climate change specific to the field vegetable | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>7. Engage in collaborative leadership<br>8. Engage in respectful and professional practices |
|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? None.

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

*This course contributes to and aligns with UFV's Indigenization goals primarily in the terms of topic selection and curriculum delivery. The course includes an exploration of contemporary and Indigenous uses of the "vegetable" parts of plants (i.e., not berries, fruits or nuts). Specific plants that can be explored within in the context of this course include wapato (*Sagittaria latifolia*) which was harvested for roots, th'éth'e (*Urtica dioica*) which continues to be harvested for young shoots and leaves. Both wapato and the'eth'e are examples of two plants that we are trying to cultivate as part of our plant library in the UFV Agriculture Technology program so students will get hands-on experience with them. We will continue to add more Indigenous food plants as the knowledge of instructors grows. In addition to incorporating specific plant examples the learning for this class includes a strong emphasis on hands-on learning with students growing vegetable crops in both the outdoor classroom and the greenhouses. These elements align with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#) specifically (with underlines for my emphasis)*

- *Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)*
- *Learning recognizes the role of Indigenous knowledge.*

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *Hands-on learning is an intentional delivery method in our program as it makes technical language and content relatable and accessible to a wide range of learners. As well, for Agri 321 vegetable crops important in Asian, South Asian, Persian, and other world cuisines, are also included (e.g., okra, wasabi, eggplant) this helps to foster interesting cross-cultural opportunities in the course.*

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) *These courses do not have stand-alone labs or separate field trips. Instead, the courses are taught so that students can move from lecture to hands-on (in the lab, the outdoor classroom/greenhouses, or off-campus field trips) within the time frame of a lecture.*

9. Estimate of the typical costs for this course, including textbooks and other materials: *Field trip cost (fuel) of approximately \$50, with all field trips within 30km of CEP campus.*

**CWC comment and response:**

- Should this course have prerequisites rather than pre/corequisites? The current structure means that students might come into these with no prior AGRI courses.  
*Historically the majority of students have been successful in AGRI 321 and 323 with AGRI 124 as either a pre- or co-requisite.*



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2009  
**REVISED COURSE IMPLEMENTATION DATE:** January 2024  
**COURSE TO BE REVIEWED** (six years after UEC approval): April 2029  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------|----|---------------------------|---|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> AGRI 321                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Vegetable Crop Production: Science and Practice                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b> Vegetable Crop Production                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Science/Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>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.<br>Note: Field trips outside of class time will be required. Please check with the department for details.              |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | AGRI 124.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number: <b>AGRI 222</b><br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                                                                                                                |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Every other year</b><br>Maximum enrolment (for information only): <b>25</b> |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td>Lecture/seminar</td> <td style="text-align: right;">30</td> </tr> <tr> <td>Experiential (work-integrated learning)</td> <td style="text-align: right;">12</td> </tr> <tr> <td>Experiential (field trip)</td> <td style="text-align: right;">3</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: right;"><b>45</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 30 | Experiential (work-integrated learning) | 12 | Experiential (field trip) | 3 |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 30        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| Experiential (work-integrated learning)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 12        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| Experiential (field trip)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 3         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                      |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |

**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 and implement appropriate farm management practices and growing systems for field vegetable crops.
3. Evaluate soil tests to determine soil amendments and improvements for optimum plant growth.
4. Evaluate and select appropriate varieties of vegetable crops.
5. Create appropriate plan for management of biotic (weeds, pathogens, invertebrates) and abiotic (cold, drought, etc.) stresses affecting vegetable crops.
6. Analyze plants nutrient status and apply appropriate fertilizer and application methods.
7. Determine appropriate timing and techniques for harvest of vegetable crops.
8. Outline appropriate postharvest handling, and marketing of major vegetable crops.
9. Explain historical and contemporary uses of the roots, shoots, and leaves of native plants by Indigenous communities.
10. Discuss practices to adapt to and mitigate contribution to climate change specific to the field vegetable sector.

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

|              |     |             |     |                |     |
|--------------|-----|-------------|-----|----------------|-----|
| Assignments: | 10% | Final exam: | 20% | Quizzes/tests: | 40% |
| Project:     | 30% |             | %   |                | %   |

**Details:**

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

**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<br>( <a href="https://www2.gov.bc.ca/gov/content/industry/agriservice-bc/production-guides/vegetables">https://www2.gov.bc.ca/gov/content/industry/agriservice-bc/production-guides/vegetables</a> )                                                                      |      |
| 2. Online resource |                       | OMAFRA Vegetable Production Information - Commercial Vegetable Production<br>( <a href="http://omafra.gov.on.ca/english/crops/hort/vegetable.html">http://omafra.gov.on.ca/english/crops/hort/vegetable.html</a> )                                                                                        |      |
| 3. OER book        | Welbaum, Gregory E.   | Vegetable Production and Practices. CABI Pub., 476 pp.<br>( <a href="https://www.cabi.org/products-and-services/about-cabi-books/open-resources/vegetable-production-and-practices/">https://www.cabi.org/products-and-services/about-cabi-books/open-resources/vegetable-production-and-practices/</a> ) | 2015 |
| 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, 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



**ORIGINAL COURSE IMPLEMENTATION DATE:** September 2009  
**REVISED COURSE IMPLEMENTATION DATE:** September 2023  
**COURSE TO BE REVIEWED** (six years after UEC approval): February 2029  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------------------------------|----|---------------------------|----|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> AGRI 323                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Course Full Title:</b> Fruit Crop Production: Science and Practice                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Course Short Title:</b> Fruit Crop Production                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                            |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Calendar Description:</b><br>Both commercial production and traditional production practices by Indigenous peoples (pre-contact and contemporary) of fruit crops will be explored. Topics include biology of the crop groups, site selection factors, field preparation, variety selection, cultivation practices, post harvest physiology, storage, and marketing. The current use of robotics, automation, and data science will be examined for the production of commodities.<br><br>Note: Field trips outside of class time will be required. Please check with the department for details. |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | AGRI 124.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Antirequisite Courses</b> ( <i>Cannot be taken for additional credit.</i> )<br>Former course code/number: <b>AGRI 223</b><br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                                                                                                                 |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Fall only</b><br>Maximum enrolment (for information only): <b>25</b> |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td>Lecture/seminar</td> <td style="text-align: right;">25</td> </tr> <tr> <td>Supervised laboratory hours (science lab)</td> <td style="text-align: right;">10</td> </tr> <tr> <td>Experiential (field trip)</td> <td style="text-align: right;">10</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: right;"><b>45</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 25 | Supervised laboratory hours (science lab) | 10 | Experiential (field trip) | 10 |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course.<br>Examination; writing of scientific paper on fruit crops. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 25        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| Supervised laboratory hours (science lab)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 10        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| Experiential (field trip)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 10        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Transfer Credit</b> (See <a href="#">bctransferguide.ca</a> .)<br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                               |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           | <b>Date of meeting:</b> June 2022                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Date of meeting:</b> September 9, 2022                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | <b>Date of meeting:</b> April 21, 2023                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                           |    |                           |    |  |  |  |  |                    |           |                                                                                                                                                           |  |

**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 the commercial fruit industry in BC in terms of current production and future opportunities.
2. Describe Indigenous cultivation practices in the Fraser Valley, pre-contact and contemporary.
3. Explain the underlying science (morphology, physiology, and post-harvest handling) in order to develop an evidence-based approach to sustainable commercial production of specific crops.
4. List the requirements for selecting a suitable site for various fruit crops including ecosystem impacts and services of site characteristics.
5. Perform soil and other tests (e.g., chlorophyll content) to determine improvements for optimum plant growth.
6. Differentiate the pros and cons of various varieties, including older heritage varieties and newer varieties.
6. Describe current methods used in fruit breeding including traditional breeding and various genetic approaches (transgenics, gene editing).
7. Identify both abiotic and biotic causes of crop stress and yield loss.
8. Conduct a group research project including question development, literature review, experimental design, data collection, data summary, interpretation, and presentation.
9. Determine appropriate timing (yield estimation) and techniques for harvest of fruit crops in British Columbia.
10. Identify the use of automation, robotics, and data science in fruit production as tools for addressing labour, sustainability, and other production issues.
11. Identify different types of pollination management approaches for fruit production.

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

|             |     |                |     |             |     |
|-------------|-----|----------------|-----|-------------|-----|
| Assignments | 25% | Quizzes/tests: | 30% | Final exam: | 20% |
| Project:    | 25% |                | %   |             | %   |

**Details:**

Weekly quizzes are done pre-class to ensure that students have completed the pre-class readings. Assignments consist of weekly to bi-weekly worksheets that assess students learning usually with hands-on activities dispersed through the lecture. A series of smaller assignments are scaffolded into a larger research project.

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

**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. Other           | Reimer, Chad               | Before we lost the lake: A natural and human history of Sumas Valley | 2019 |
| 2. Online resource | Ministry of Agriculture BC | BC Berry Production Guide                                            |      |
| 3.                 |                            |                                                                      |      |
| 4.                 |                            |                                                                      |      |
| 5.                 |                            |                                                                      |      |

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

**Course Content and Topics**

- What is a fruit?
- Fruit production by Sto:lo peoples in the Fraser Valley: berry patches/forest gardens and survey of locally important fruit crops
- Field trip to Willems Berry Farm (Abbotsford BC)
- Taxonomy, morphology, physiology, life history
- Biotic resources: plants – variety selection and breeding
- Abiotic resources; nutrients, water, light, temperature – site selection
- Nutrient and pest management
- Production – harvest and dormancy (Van Maren Hazelnut Farm – Harvest Option 1)
- Production – maintenance/pre-production (Tri R Cranberries – Harvest Option 2)
- Production – propagations
- Post-harvest fruit quality
- Research project – final data collection and poster layout
- Industry trends and issues (including automation trade, labour, competition, sustainability)
- Fruit production research day – poster presentations

**Memo for Course Changes**

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: November 13, 2022

Subject: Proposal for revision of **Agri 324 Greenhouse Production: Science & Practice**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☒ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes and course description reflect updates to knowledge and skills required for current and future agricultural practice. In particular, the shift from focusing solely on greenhouse production to protected crops – broadens the course to cover both vertical production and indoor mushroom cultivation. The course is an approved course for the BC Institute of Agrologists. While the changes will have to be reviewed by BCIA, the proposed changes do not take the focus of the course away from agrology. The change in pre/corequisite reflects that some students may take this class concurrently with AGRI 124.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                                                                                     | ILOs                                                                              |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 1. Explain critical aspects in the design of controlled environment systems for plant or mushroom production | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |
| 2. Explain the impact of environmental factors (specifically water, nutrient and CO <sub>2</sub> ) on        | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |



|                                                                                                                                                           |                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| commodity growth in protected systems (e.g., greenhouse, vertical, or mushrooms)                                                                          |                                                                                                                                                                                                    |
| 3. Analyze water and plant nutrients tests and develop appropriate nutrient input plans for maximum growth and yield in conventional and organic systems. | 2. Analyze critically and imaginatively<br>4. Initiate inquiries and develop solutions to problems<br>6. Pursue self-motivated and self-reflective learning                                        |
| 4. Outline methods for manipulating greenhouse or other protected environments to control crop growth and development                                     | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently                                                                       |
| 5. Create appropriate supplemental lighting strategies for maximum yield and highest energy efficiency.                                                   | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>4. Initiate inquiries and develop solutions to problems                                                        |
| 6. Design and describe appropriate crop cultivation techniques                                                                                            | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>5. Communicate effectively                                                                                    |
| 7. Develop integrated pest management plans for commodities grown in protected environments                                                               | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>4. Initiate inquiries and develop solutions to problems                                                       |
| 8. Describe requirements for the location of protected crop facilities British Columbia                                                                   | 1. Demonstrate information competency<br>6. Pursue self-motivated and self-reflective learning<br>8. Engage in respectful and professional practices<br>9. Contribute regionally and globally      |
| 9. Describe production challenges and opportunities for the production of commodities in protected environments                                           | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>4. Initiate inquiries and develop solutions to problems<br>8. Engage in respectful and professional practices |

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? None.
6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or

other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

*This course contributes to and aligns with UFV's Indigenization goals primarily in the terms of curriculum delivery and assessment. The course has a strong emphasis on hands-on learning with students growing crops in both a greenhouse and vertical setting, as well as gaining hands-on experience with indoor mushroom cultivation. The course includes a semester long project that allows students to follow the growth of various crops from planting through to harvest, reflecting on crop requirements and responses to conditions. This gives the students a unique opportunity because with protected crops there is enough time to see the entire production cycle in a consistent manner (i.e., every time the course is offered and regardless of instructor). Students also get to share the abundance of their harvest with others in the UFV community, e.g., other Agriculture students, Baker House, UFV Culinary programs etc. These elements align with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#) specifically (with underlines for my emphasis)*

- *Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.*
- *Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)*
- *Learning involves patience and time*

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *Hands-on learning is an intentional delivery method in our program as it makes technical language and content relatable and accessible to a wide range of learners. As well, for Agri 324 students have access to the greenhouse, vertical growing facilities, and mushroom production outside of scheduled lecture time. This provides students with additional opportunities to develop skills, work on their project, or catch up on hands-on work. This flexibility in accessing course materials (along with online posting of notes) is an important element of equity and inclusivity, since some students may struggle with regular attendance for a number of reasons.*
8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) *These courses do not have stand-alone labs or separate field trips. Instead, the courses are taught so that students can move from lecture to hands-on (in the lab, the outdoor classroom/greenhouses, or off-campus field trips) within the time frame of a lecture.*
9. Estimate of the typical costs for this course, including textbooks and other materials: *Field trip cost (fuel) of approximately \$50, with all field trips within 30km of CEP campus.*

**CWC comment and response:**

- Should this course have prerequisites rather than pre/corequisites? The current structure means that students might come into these with no prior AGRI courses.  
*This course runs in the Winter term. We generally have a very small intake of students in the Winter term to our certificate or diploma. In an effort to be accommodating and to stay true to our access roots, we have listed pre/co-requisites for these courses. Historically students who enter in the Winter term to the Hort Certificate or Diploma are also taking AGRI 129 in the same term. That course should be listed as an additional pre/co-requisite.*



**ORIGINAL COURSE IMPLEMENTATION DATE:** January 2009  
**REVISED COURSE IMPLEMENTATION DATE:** January 2024  
**COURSE TO BE REVIEWED** (six years after UEC approval): April 2029  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------|----|---------------------------|---|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> AGRI 324                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                            |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Protected Crop Production: Science & Practice                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b> Protected Crop Production                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                           |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Technical aspects of the design, operation, environmental control, monitoring, and irrigation systems design of greenhouse and other protected crop systems (e.g. vertical farming and mushroom). Production requirements of crops from variety to selection to post-harvest handling are explored. This course combines theory with hands-on practice in on-campus greenhouses and other growing facilities.<br>Note: Field trips outside of class time will be required. Please check with the department for details.                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           | AGRI 124 and AGRI 129.                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number: <b>AGRI 224</b><br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                                                                                               |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar</td> <td style="text-align: right;">30</td> </tr> <tr> <td>Experiential (work-integrated learning)</td> <td style="text-align: right;">12</td> </tr> <tr> <td>Experiential (field trip)</td> <td style="text-align: right;">3</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: right;"><b>45</b></td> </tr> </table> |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 30 | Experiential (work-integrated learning) | 12 | Experiential (field trip) | 3 |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 30        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| Experiential (work-integrated learning)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 12        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| Experiential (field trip)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                     |           | <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                        |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                         |    |                           |   |  |  |  |  |                    |           |                                                                                               |  |

AGRI 324

University of the Fraser Valley Official Undergraduate Course Outline

Page 2 of 2

**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. Explain critical aspects in the design of controlled environment systems for plant production.
2. Explain the impact of environmental factors (specifically water, nutrient, and CO<sub>2</sub>) on plant growth in protected systems (e.g., greenhouse or vertical production).
3. Analyze water and plant nutrients tests and develop appropriate nutrient input plans for maximum growth and yield in conventional and organic systems.
4. Outline methods for manipulating greenhouse or other protected environment to control plant growth and development.
5. Create appropriate supplemental lighting strategies for maximum yield and highest energy efficiency.
6. Design and describe appropriate crop cultivation techniques.
7. Develop IPM management plan for protected environment.
8. Describe and implement requirements to successfully grow greenhouse crops of economic importance to British Columbia.
9. Describe production, challenges, and opportunities for the commercial mushroom sector.

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

|                |     |             |     |              |     |
|----------------|-----|-------------|-----|--------------|-----|
| Quizzes/tests: | 40% | Final exam: | 10% | Assignments: | 50% |
|                | %   |             | %   |              | %   |

**Details:**

Field trip assignment: 10%

Growing practices assignment: 40%

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

**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 |                                                   | OMAFRA Publication 836, Growing Greenhouse Vegetables in Ontario. 2021 revision.<br><a href="http://omafra.gov.on.ca/english/crops/pub836/p836order.htm">http://omafra.gov.on.ca/english/crops/pub836/p836order.htm</a> |      |
| 2. Textbook        | Hanan, Joe J.                                     | Greenhouses: Advanced Technology for Protected Horticulture.                                                                                                                                                            |      |
| 3. Textbook        | Nelson, Paul V.                                   | Greenhouse Operation and Management 7th Edition                                                                                                                                                                         | 2011 |
| 4. Textbook        | Editors: Toyoki Kozai, Genhua Niu, Joseph Masabni | Plant Factory Basics, Applications and Advances, 1st Edition                                                                                                                                                            | 2021 |
| 5.                 |                                                   |                                                                                                                                                                                                                         |      |

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

Calculator, pruners, pocketknife, work gloves, rain gear CSA (Canadian Safety Association) approved footwear, transportation to field trips.

**Course Content and Topics**

1. Introduction to controlled environment agriculture, statistics, and market trends
2. Structures and components
3. Plant nutrient recipes for organic and conventional production and nutrient delivery systems
4. Irrigation and the root zone environment
5. Climate control; heating, RH, CO<sub>2</sub>
6. Solar radiation, lighting systems/ spectrum
7. Production and environmental control systems
8. Biology, physiology, and production practices and major pests and diseases of leafy greens, solanaceae (tomato, bell pepper, eggplant)
9. Biology, physiology, and production practices and major pests and diseases cucurbits plants (cucumber, melons), berries in protected environment
10. Biology, physiology, and production practices and challenges of growing mushrooms

**Memo for Course Changes**

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: November 13, 2022

Subject: Proposal for revision of **Agri 327 Nursery Production and Propagation: Science & Practice**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes and course description reflect updates to knowledge and skills required for current and future agricultural practice. The course is an approved course for the BC Institute of Agrologists. The change in pre/corequisite reflects that some students may take this class concurrently with AGRI 124.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                                                  | ILOs                                                                                                                                    |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1. Discuss relevant legislation specific to the nursery sector            | 1. Demonstrate information competency<br>8. Engage in respectful and professional practices                                             |
| 2. Explain regulatory requirements such as the phytosanitary certificates | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>8. Engage in respectful and professional practices |

|                                                                                                                              |                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. Choose an appropriate production method for a site                                                                        | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>4. Initiate inquiries and develop solutions to problems                                                    |
| 4. Apply knowledge of propagation techniques and potting media qualities for different plant types                           | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                               |
| 5. Estimate the time and cost to bring a crop to market                                                                      | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>4. Initiate inquiries and develop solutions to problems                                                     |
| 6. List the common types of pots and plug trays and discuss their uses                                                       | 1. Demonstrate information competency                                                                                                                                                           |
| 7. Organize and execute a plant sale of multiple plant species, includes determining price, promotion and place for the sale | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>7. Engage in collaborative leadership<br>8. Engage in respectful and professional practices                |
| 8. Apply common industry terms, for example bedding plant, offset, and division                                              | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently                                                                                                               |
| 9. Explain the role of the ornamental nursery sector in the introduction of invasive plant species                           | 4. Initiate inquiries and develop solutions to problems<br>7. Engage in collaborative leadership<br>8. Engage in respectful and professional practices<br>9. Contribute regionally and globally |
| 10. Discuss practices to adapt to and mitigate contributions to climate change specific to the nursery sector                | 4. Initiate inquiries and develop solutions to problems<br>7. Engage in collaborative leadership<br>8. Engage in respectful and professional practices<br>9. Contribute regionally and globally |

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? None.
6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic](#)

[Plan, Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

*This course contributes to and aligns with UFV's Indigenization goals primarily in the terms of course content and delivery. The course has a strong emphasis on hands-on learning with students growing crops in both a greenhouse and in the small container nursery yard on CEP campus. As well one of the learning outcomes (LO 9) provides an opportunity to explore the impact of the ornamental nursery sector, specifically in terms of introduction of invasive species, has on local ecosystems. As part of this learning outcome the use of native plants as alternatives to introduced ornamentals will be explored. For example, instead of cultivating butterfly bush (*Buddleja davidii*) nursery producers can propagate sth'iwuq'ulhp red flowering currant (*Ribes sanguineum*) or th'exwíyelhp red osier dogwood (*Cornus sericea*) instead to meet the same needs of landscape design. Examples of these other native plants are included in our plant library. These elements align with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#) specifically (with underlines for my emphasis)*

- *Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.*
  - *Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)*
  - *Learning recognizes the role of Indigenous knowledge*
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *Hands-on learning is an intentional delivery method in our program as it makes technical language and content relatable and accessible to a wide range of learners. As well, for Agri 327 students have access to the greenhouse and outdoor classroom outside of scheduled course time. This provides students with additional opportunities to develop skills, work on their projects, or catch up on hands-on work. This flexibility in accessing course materials (along with online posting of notes) is an important element of equity and inclusivity, since some students may struggle with regular attendance for a number of reasons.*
  8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) *These courses do not have stand-alone labs or separate field trips. Instead, the courses are taught so that students can move from lecture to hands-on (in the lab, the outdoor classroom/greenhouses, or off-campus field trips) within the time frame of a lecture.*
  9. Estimate of the typical costs for this course, including textbooks and other materials: *Field trip cost (fuel) of approximately \$50, with all field trips within 50km of CEP campus.*



**CWC comment and response:**

- Should this course have prerequisites rather than pre/corequisites? The current structure means that students might come into these with no prior AGRI courses.
- *This course runs in the Winter term. We generally have a very small intake of students in the Winter term to our certificate or diploma. In an effort to be accommodating and to stay true to our access roots, we have listed pre/co-requisites for these courses. Historically students who enter in the Winter term to the Hort Certificate or Diploma are also taking AGRI 129 in the same term. That course should be listed as an additional pre/co-requisite.*



**ORIGINAL COURSE IMPLEMENTATION DATE:** January 2009  
**REVISED COURSE IMPLEMENTATION DATE:** January 2024  
**COURSE TO BE REVIEWED** (six years after UEC approval): April 2029  
**Course outline form version:** 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----|-----------------------------------------|----|---------------------------|---|--|--|--|--|--------------------|-----------|
| <b>Course Code and Number:</b> AGRI 327                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                            |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Course Full Title:</b> Nursery Production and Propagation: Science & Practice<br><b>Course Short Title:</b> Nursery Production & Prop.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Faculty:</b> Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Department (or program if no department):</b> Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                           |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Calendar Description:</b><br><p>Operations and management of a commercial nursery are explored in this course. Topics include propagation techniques, growing methods, commonly used equipment, relevant legislation, and legal obligations. Production needs of different types of plants are explored using a combination of theory and hands-on practice, with students working in the on-campus greenhouse during most classes.</p> <p>Note: Field trips outside of class time will be required. Please check with the department for details.</p>                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | AGRI 124 and AGRI 129.                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number: <b>AGRI 227</b><br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                                                                                                                                                    | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 80%;">Lecture/seminar</td> <td style="width: 20%; text-align: center;">25</td> </tr> <tr> <td>Experiential (work-integrated learning)</td> <td style="text-align: center;">17</td> </tr> <tr> <td>Experiential (field trip)</td> <td style="text-align: center;">3</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Lecture/seminar | 25 | Experiential (work-integrated learning) | 17 | Experiential (field trip) | 3 |  |  |  |  | <b>Total hours</b> | <b>45</b> |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| Experiential (work-integrated learning)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| Experiential (field trip)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>45</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Transfer Credit</b> <i>(See <a href="#">bctransferguide.ca</a>.)</i><br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Date of meeting:</b> November 2022                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Date of meeting:</b> December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Date of meeting:</b> April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |    |                                         |    |                           |   |  |  |  |  |                    |           |

**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. Discuss relevant legislation specific to the nursery sector.
2. Explain regulatory requirements such as the phytosanitary certificates.
3. Choose an appropriate production method for a site.
4. Apply knowledge of propagation techniques and potting media qualities for different plant types.
5. Estimate the time and cost to bring a crop to market.
6. List the common types of pots and plug trays and discuss their uses.
7. Organize and execute a plant sale of multiple plant species, includes determining price, promotion, and place for the sale.
8. Apply common industry terms, for example bedding plant, offset, and division.
9. Explain the role of the ornamental nursery sector in the introduction of invasive plant species.
10. Discuss practices to adapt to and mitigate contributions to climate change specific to the nursery sector.

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

|          |     |                |     |             |     |
|----------|-----|----------------|-----|-------------|-----|
| Project: | 30% | Quizzes/tests: | 40% | Final exam: | 30% |
|          | %   |                | %   |             | %   |

**Details:**

Project: Plant sale

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

**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. Textbook        | Westbrook, Nau and Caulkins | Ball Red Book: Crop Culture and Production (Volume 2)                                                                                                                                                                                                                                                                                                                                           | 2021 |
| 2. Online resource | BC Ministry of Agriculture  | Nursery Production and Pest Management Guide<br>( <a href="https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/animal-and-crops/crop-production/nursery-production-guide.pdf">https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/animal-and-crops/crop-production/nursery-production-guide.pdf</a> ) | 2017 |
| 3.                 |                             |                                                                                                                                                                                                                                                                                                                                                                                                 |      |
| 4.                 |                             |                                                                                                                                                                                                                                                                                                                                                                                                 |      |
| 5.                 |                             |                                                                                                                                                                                                                                                                                                                                                                                                 |      |

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

Calculator, CSA (Canadian Safety Association) approved footwear, pruners, pocket knife, work gloves, rain gear, transportation to field trips.

**Course Content and Topics**

- Laws and regulation
- Canadian Food Inspection Agency (CFIA)
- Common practices in the commercial nursery industry (including nutrient and pest management)
- Liners and plug trays
- Drainage of different potting media
- Container stock production versus field stock production
- Vegetative reproduction of plants
- Propagation by offsets and division
- Seed biology
- Stratification and scarification of seeds
- Plant hormones and herbaceous cuttings in preparation for plant sale
- Commercial nursery industry outlook and market trends
- Preparation for plant sale

**Memo for Course Changes**

To: Ben Vanderlei, Chair, FSCC

From: Renee Prasad, Agriculture Technology Department Chair

Date: October 16, 2022

Subject: Proposal for revision of **Agri 371 Sustainable Holistic Agriculture: Planning and Practices**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☒ Credits and/or total hours
- ☒ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change: *The course is overdue for review and changes in Learning Outcomes reflect updates to knowledge and skills required for current and future agricultural practice. The course is an approved course for the BC Institute of Agrologists. The term holism is used broadly in society and does not have as clear a scientific meaning as the term “ecology”; the term sustainable in the course title is too much of an overlap with Agri 311 title. The change in hours reflect how the course is delivered now within the semester with one meeting time a week (during two consecutive blocks). The change in pre/corequisite reflects the requirements for students to have 200-level knowledge of soil science.*

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students’ ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

| Course Learning Outcomes                                                            | ILOs                                                                              |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 1. Define the terms agroecology, sustainability, food systems, and food sovereignty | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently |

|                                                                                                                                                                                                                         |                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2. Understand the role that Indigenous food cultivation practices play in conserving biodiversity globally                                                                                                              | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>9. Contribute regionally and globally                                                                            |
| 3. Describe how current agricultural systems contribute to human-caused ecological change on the planetary scale (i.e., the role of agriculture in the Anthropocene)                                                    | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>4. Initiate inquiries and develop solutions to problems                                                          |
| 4. Describe the types of agricultural practices that exacerbate climate change/biodiversity loss                                                                                                                        | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>4. Initiate inquiries and develop solutions to problems                                                         |
| 5. Research agricultural practices that that can mitigate/reduce the ecological practices of agricultural production without impacting yield                                                                            | 1. Demonstrate information competency<br>4. Initiate inquiries and develop solutions to problems<br>8. Engage in respectful and professional practices                                               |
| 6. Evaluate if an agricultural practice/product meets the criteria of sustainability through experimentation and literature review                                                                                      | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently                                                                         |
| 7. Define the term “green washing” as applied to an agricultural practice                                                                                                                                               | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently                                                                         |
| 8. Observe current production practices, locally through field trips and globally through videos and guests lecturers, that follow principles of agroecology                                                            | 1. Demonstrate information competency<br>3. Use knowledge and skills proficiently<br>8. Engage in respectful and professional practices                                                              |
| 9. Explore the concept of power as a socio-political factor and its impact on food producers and consumers                                                                                                              | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>4. Initiate inquiries and develop solutions to problems<br>6. Pursue self-motivated and self-reflective learning |
| 10. Collect data that can help establish benchmark values around various criteria for sustainability (e.g. biodiversity benchmarks, soil health indicators, yield, and mental health of farmers) of a farming operation | 1. Demonstrate information competency<br>2. Analyze critically and imaginatively<br>3. Use knowledge and skills proficiently                                                                         |

|  |                                                    |
|--|----------------------------------------------------|
|  | 8. Engage in respectful and professional practices |
|--|----------------------------------------------------|

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? N/A
5. Which program areas have been consulted about the change(s)? None.
6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).  
*This course contributes to and aligns with UFV's Indigenization goals primarily in the terms of topic selection and curriculum delivery. The role of Indigenous land care practices from around the world is an important theme of the course textbook and is explored most weeks of the course. Throughout the class we take the learning on to the land, both to farms in Abbotsford and Chilliwack and the outdoor classroom (behind H-building). Hands-on learning is integrated throughout each class. These elements align with First Peoples Principles of Learning [First Peoples Principles of Learning – First Nations Education Steering Committee FNESC](#) specifically (with underlines for my emphasis)*
  - *Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors*
  - *Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)*
  - *Learning involves recognizing the consequences of one's actions*
  - *Learning recognizes the role of Indigenous knowledge.*
7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods? *This course has pre-class readings from the textbook and a quiz that is completed pre-class, to ensure readings are completed and that students are exposed to terms and concepts once before class. During class students are given time to complete worksheets with lectures broken up with periods for hands-on learning and end of class reflection gives students a chance to connect the new material with previous learning and experiences. The large experiential learning project is scaffolded to allow for smaller assessments that build to the final presentation. These methods have been chosen to make very technical content accessible to all students regardless of learning styles and previous experience with agriculture.*
8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.) *This course does not have a stand-alone lab. Instead, the course is taught in a lab, and we can move from lecture to hands-on (in both the lab and the outdoor classroom/greenhouses) for every lecture.*

9. Estimate of the typical costs for this course, including textbooks and other materials: *Lab coat \$30, hand lens \$15, field trip fuel costs (approximately \$50 – the three field trips are each within 40km of UFV CEP campus)*

**CWC comment and response:**

- Should this course have prerequisites rather than pre/corequisites? The current structure means that students might come into these with no prior AGRI courses.  
*This course runs in the Winter term. We generally have a very small intake of students in the Winter term to our certificate or diploma. As long as students are in AGRI 204 in the same term, they have been able to succeed with the material.*



ORIGINAL COURSE IMPLEMENTATION DATE: September 2009  
 REVISED COURSE IMPLEMENTATION DATE: January 2024  
 COURSE TO BE REVIEWED (six years after UEC approval): April 2029  
 Course outline form version: 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------|----|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| Course Code and Number: AGRI 371                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | Number of Credits: 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Course Full Title: Agroecology<br>Course Short Title: Agroecology                                                                                                                                                                                                                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Faculty: Faculty of Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           | Department (or program if no department): Agriculture Technology                                                                                                                                                                                                                                                                                                                                                                                                  |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Explores the science of agroecology as the foundation for ecologically, economically, and socially responsible food production. Evidence-based exploration of the environmental impact of current, historic, and emerging practices for the production of both plant and animal-based food.<br>Note: Field trips to local farms will be required outside of class time throughout the second half of the semester. Please check with the department for details. |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Prerequisites (or NONE):                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Corequisites (if applicable, or NONE):                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Pre/corequisites (if applicable, or NONE):                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | AGRI 204.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> (Cannot be taken for additional credit.)<br>Former course code/number: <b>AGRI 271</b><br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                       |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>Face-to-face only</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1"> <tr> <td>Lecture/seminar</td> <td>30</td> </tr> <tr> <td>Experiential (field trip)</td> <td>15</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td><b>Total hours</b></td> <td><b>45</b></td> </tr> </table>                                                                                                                                                     |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 30 | Experiential (field trip) | 15 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 30        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Experiential (field trip)                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 15        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                      |           | <b>Transfer Credit</b> (See <a href="#">bctransferguide.ca</a> )<br>Transfer credit already exists: <b>Yes</b><br>Submit outline for (re)articulation: <b>Yes</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                               |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Department approval                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           | Date of meeting: November 2022                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Faculty Council approval                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           | Date of meeting: December 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Undergraduate Education Committee (UEC) approval                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | Date of meeting: April 21, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                           |    |  |  |  |  |  |  |                    |           |                                                                                               |  |



**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. Define the terms agroecology, sustainability, food systems, and food sovereignty.
2. Explain the role that Indigenous food cultivation practices play in conserving biodiversity globally.
3. Describe how current agricultural systems contribute to human-caused ecological change on the planetary scale (i.e. the role of agriculture in the Anthropocene).
4. Describe the types of agricultural practices that exacerbate climate change/biodiversity loss.
5. Research agricultural practices that that can mitigate/reduce the ecological practices of agricultural production without impacting yield.
6. Evaluate if an agricultural practice/product meets the criteria of sustainability through experimentation and literature review.
7. Define the term "green washing" as applied to an agricultural practice.
8. Observe current production practices, locally through field trips and globally through videos and guests lecturers, that follow principles of agroecology.
9. Discuss the concept of power as a socio-political factor and its impact on food producers and consumers.
10. Collect data that can help establish benchmark values around various criteria for sustainability (e.g. biodiversity benchmarks, soil health indicators, yield, and mental health of farmers) of a farming operation.

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

|                |     |              |     |          |     |
|----------------|-----|--------------|-----|----------|-----|
| Quizzes/tests: | 25% | Assignments: | 50% | Project: | 25% |
|                | %   |              | %   |          | %   |

**Details:**

Assignments:

Weekly reflections: 30%

On farm biodiversity assessment: 20%

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

**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. Textbook | Gliesmann, S.R.       | Agroecology the Ecology of Sustainable Food Systems, Current Edition | 1998 |
| 3.          |                       |                                                                      |      |
| 4.          |                       |                                                                      |      |
| 5.          |                       |                                                                      |      |

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

Rain gear, transportation to field trips.

**Course Content and Topics**

- Agroecology introduction and related terms; the Anthropocene
- Agroecosystems: population ecology and genetic resources
- Agroecosystems: succession and disturbance
- The role of animals in agroecosystems
- Agroecosystems: energy flow and balances
- Landscape ecology and interaction with agroecosystems
- Agriculture and society: understanding power (socio-economic-political)
- How power shapes food systems
- Field trips to local farms (Abbotsford, Chilliwack, Agassiz)

**Memo for Course Changes**

To: FECHDCC

From: Department Head, Chris Campbell

Date: November 22, 2022

**Subject: Proposal for revision: ADED 365 Adult Education in Canada: Indigenous Peoples**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

- Remove barriers to enrollment in ADED courses due to Banner limitations with pre-requisite wording
- Conform to the new official course outline form as per UEC.
- Ensure EDID (equity, diversity, inclusion, and decolonization) was included in the learning outcomes, course content, and course description.
- Update course materials; and,
- Ensure that current trends and research were represented.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

There were no substantial changes to the learning outcomes. This course already includes outcomes related to analyzing critically and imaginatively, pursuing self-motivated and self-reflective learning, initiating inquiries, communicating effectively, and engaging in respectful and professional practices

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? No
5. Which program areas have been consulted about the change(s)? None

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

The updated course outlines come out of process with Indigenous knowledge holders and Indigenous scholars that was supported by a SIF grant. This course explicitly addresses Indigenous approaches and methods to teaching and learning.

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

This course addresses EDID through curriculum content, delivery, methods and assessment.

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc).

Class size of 25 to align with current practice. No budget implications.

Estimate of the typical costs for this course, including textbooks and other materials:  
\$30 – 100 depending on texts.



ORIGINAL COURSE IMPLEMENTATION DATE: September 2007  
 REVISED COURSE IMPLEMENTATION DATE:  
 COURSE TO BE REVIEWED (six years after UEC approval): April 2029  
 Course outline form version: 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----|---------------------|----|---------------------------------------------------------|---|--|--|--|--|--------------------|-----------|
| <b>Course Code and Number:</b> ADED 365                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Number of Credits:</b> 3 <u>Course credit policy (105)</u>                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Course Full Title:</b> Adult Education in Canada: Indigenous Peoples                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Course Short Title:</b> Adult Ed in Cda: Indigenous Ppls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Faculty:</b> Faculty of Education, Community, & Human Dev.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Department (or program if no department):</b> Adult Education                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Calendar Description:</b><br>Explores the history of and movements associated with adult education as they impact Indigenous peoples in Canada. Examines how Indigenous adult learners challenge the assumptions, principles, and practices of mainstream Canadian adult education, and the responsibilities adult educators have in addressing these issues.                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 30 university-level credits.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | One of ADED 210, ADED 310, ADED 360, or ADED 390.                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i><br>Former course code/number: <b>ADED 330G</b><br>Cross-listed with:<br>Equivalent course(s): <b>ADED 330G</b><br><i>(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.)</i>                                                                                                                                                                                                            | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <u>policy 207</u> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Annually</b><br>Maximum enrolment (for information only): <b>25</b> |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 80%;">Lecture/seminar</td> <td style="width: 20%; text-align: center;">12</td> </tr> <tr> <td>Tutorials/workshops</td> <td style="text-align: center;">27</td> </tr> <tr> <td>Experiential (cultural/elder learning or participation)</td> <td style="text-align: center;">6</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: right;"><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Lecture/seminar | 12 | Tutorials/workshops | 27 | Experiential (cultural/elder learning or participation) | 6 |  |  |  |  | <b>Total hours</b> | <b>45</b> |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 27                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| Experiential (cultural/elder learning or participation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>45</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Transfer Credit</b> <i>(See <u>bctransferguide.ca</u>.)</i><br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <u>transfer credit form</u>.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Scheduled Laboratory Hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Date of meeting:</b> November 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Date of meeting:</b> January 6, 2023                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Date of meeting:</b> April 21, 2023                                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |    |                     |    |                                                         |   |  |  |  |  |                    |           |

**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. Explain common and unique educational issues and needs facing Canadian Indigenous adults.
2. Identify movements and initiatives of Indigenous peoples in Adult Education.
3. Critique Adult Education in Canada with respect to the treatment and inclusion of Indigenous peoples.
4. Use principles from the Truth and Reconciliation Commission's Calls to Action to inform their own professional position on Indigenous learners and Adult Education in Canada.
5. Apply Indigenous pedagogy and representative knowledge in learning strategies.

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

|              |      |   |   |
|--------------|------|---|---|
| Assignments: | 100% | % | % |
|--------------|------|---|---|

**Details:** Reflection (20%); précis posting (10%); site visit informing your practice: proposal (5%) and report (20%); final proposal, paper, and presentation (5%, 25%, 15%)

**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.)*

For one assignment, students are required to visit a local physical site of their choice that is of importance to Indigenous peoples. This visit is not an official UFV 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. Textbook        | Archibald, Jo-Ann               | Indigenous Storywork: Educating the heart, mind, body & spirit. UBC Press.                                                                                                                                                                                                                                                                                                                                                                                                                    | 2008 |
| 2. Other           | Atleo, M.R.                     | Chapter 4 – The zone of Canadian Aboriginal adult education: A social movement approach. In T. Nesbit, M. S. Brigham, N. Taber, & T. Gibb, (Eds.) Building on critical traditions: Adult education and learning in Canada (pp. 1–26). Thompson Publishers.                                                                                                                                                                                                                                    | 2013 |
| 3. Journal         | Atleo, M.R.                     | Traditional Storywork: Understanding Aboriginal learning ideology through Storywork with Elders. The Alberta Journal of Educational Research. 55(4), 453-467.                                                                                                                                                                                                                                                                                                                                 | 2009 |
| 4. Journal         | Kirkness, V.J., & Barnhardt, R. | First Nations and Higher Education: The four R's--respect, relevance, reciprocity, responsibility. The Journal of American Indian Education, 30(3), 1-15.                                                                                                                                                                                                                                                                                                                                     | 1991 |
| 5. Other           | Pidgeon, M.                     | Transformation and Indigenous interconnections: Indigeneity, leadership, and higher education. In C. Kenny & T. Fraser (Eds.), Living Indigenous leadership: Native narratives on building strong communities                                                                                                                                                                                                                                                                                 | 2012 |
| 6. Online resource |                                 | Truth and Reconciliation Commission of Canada United Nations & University of Manitoba. Truth & reconciliation: calls to action. National Centre for Truth and Reconciliation. <a href="https://www2.gov.bc.ca/assets/gov/british-columbians-our-governments/indigenous-people/aboriginal-peoples-documents/calls_to_action_english2.pdf">https://www2.gov.bc.ca/assets/gov/british-columbians-our-governments/indigenous-people/aboriginal-peoples-documents/calls_to_action_english2.pdf</a> | 2015 |
| 7. Online resource |                                 | United Nations (General Assembly. Declaration on the Rights of Indigenous People. <a href="https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf">https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf</a>                                                                                                                                                                         | 2007 |

**Course Content and Topics**

|         |                                                                                                    |
|---------|----------------------------------------------------------------------------------------------------|
| Week 1  | Stóló opening; orientation to Indigenous adult education/learning: What do we know/how do we know? |
| Week 2  | Language revitalization: to get at traditional Indigenous knowledge                                |
| Week 3  | Learning models (Indigenous pedagogies and storyworks)                                             |
| Week 4  | Stereotypes: getting grounded in Canadian Indigenous cultures, contexts                            |
| Week 5  | Colonialism/imperialism/capitalism                                                                 |
| Week 6  | Educational oppression                                                                             |
| Week 7  | Colonialism/imperialism/capitalism (health care and murdered and missing women)                    |
| Week 8  | Liberatory teaching strategies: trauma informed practice                                           |
| Week 9  | Cultural safety, cultural humility, and culturally responsive practices                            |
| Week 10 | Models of post-secondary education and responses to the TRC for Adult Education                    |
| Week 11 | Presentations                                                                                      |
| Week 12 | Active reconciliation                                                                              |
| Week 13 | Recapturing diversity for planetary survival                                                       |

**Memo for Course Changes**

To: FECHDCC

From: Department Head, Chris Campbell

Date: November 22, 2022

**Subject: Proposal for revision: ADED 405 Diversity in Adult Education**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☒ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☒ Calendar description
- ☒ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☒ Learning outcomes
- ☒ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☐ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

- Remove barriers to enrollment in ADED courses due to Banner limitations with pre-requisite wording
- Conform to the new official course outline form as per UEC.
- Ensure EDID (equity, diversity, inclusion, and decolonization) was included in the learning outcomes, course content, and course description.
- Update course materials
- Ensure that current trends and research were represented.

3. If there are substantial changes to the learning outcomes, explain how they align with the learning outcomes of the program(s) and contribute to students' ability to meet the [Institutional Learning Outcomes \(ILOs\)](#):

There were no substantial changes to the learning outcomes. This course already includes outcomes related to analyzing critically and imaginatively, pursuing self-motivated and self-reflective learning, initiating inquiries, communicating effectively, and engaging in respectful and professional practices

4. Is this course required by any program beyond the discipline? If so, how will this change affect that program or programs? No
5. Which program areas have been consulted about the change(s)? None

6. In what ways does this course (not just the proposed changes) contribute to [Indigenizing Our Academy](#)? Provide explicit examples of assignment design, topic selection, curriculum delivery, or other methods, which can be in response to one or more of the following: [UFV Integrated Strategic Plan](#), [Fulfilling Our Commitment to Aboriginal Peoples policy \(BRP-200.05\)](#), the [TRC Calls to Action](#), and/or the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#).

*The updated course outlines come out of process with Indigenous knowledge holders and Indigenous scholars that was supported by a SIF grant. This course explicitly addresses Indigenous approaches and methods to teaching and learning. This course explicitly addresses Indigenous approaches and methods to teaching and learning.*

7. How does the course reflect principles of [equity, diversity, and inclusion](#), through assignment design, topic selection, curriculum delivery, or other methods?

This course addresses EDID through curriculum content, delivery, methods, and assessment.

8. If applicable, discuss any special considerations for this course (credit value, class size limit, frequency of offering, resources required such as labs or equipment, field trips, etc.

Class size of 25 to align with current practice. No budget implications.

9. Estimate of the typical costs for this course, including textbooks and other materials:  
\$30 – 100 depending on texts.

## CWC comments and responses:

- It is unclear from the learning outcomes the degree to which Indigenization is a core component of the course. How is this course significantly different from ADED 365, which is focused on Indigenization?

*We feel that we have addressed the emphasis on diversity in ADED 405 as primary on the one hand and Indigenous peoples as related/accompanying on the other by editing the calendar description. With respect to similarities to ADED 365, we invite the committee to see the clear differences between the ADED 405 and ADED 365 learning outcomes. We feel that these courses demonstrate significant differences in focus.*

- Are the case studies in the evaluation connected to a learning outcome?  
*Yes, case studies relate to LOs #3, 6, 7. In ADED courses, instructors generally provide a constructive alignment table for students in order to make explicit how learning outcomes, learning activities, and assessments are aligned.*



ORIGINAL COURSE IMPLEMENTATION DATE: September 1998  
 REVISED COURSE IMPLEMENTATION DATE:  
 COURSE TO BE REVIEWED (six years after UEC approval): April 2029  
 Course outline form version: 09/08/2021

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------|----|--|--|--|--|--|--|--------------------|-----------|-----------------------------------------------------------------------------------------------|--|
| <b>Course Code and Number:</b> ADED 405                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Full Title:</b> Diversity in Adult Education                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Course Short Title:</b> Diversity in Adult Education                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty:</b> Faculty of Education, Community, & Human Dev.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | <b>Department (or program if no department):</b> Adult Education                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Calendar Description:</b><br>Recognizing that Canada is a diverse and multicultural country with Indigenous distinctiveness, discussions will revolve around the diversity (e.g., race, cultures, genders, abilities, class, languages) that makes up the very fabric of Canadian society and its relationship to adult education. Students will explore diverse learning models and Indigenous teaching philosophies for working with adult learners. The course provides pedagogical approaches and methods for decolonization and creating more equitable and inclusive learning experiences for the diverse social identities that make up adult learning communities. |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Prerequisites (or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           | 30 university-level credits.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Pre/corequisites (if applicable, or NONE):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | One of ADED 210, ADED 310, ADED 360, or ADED 390.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Antirequisite Courses</b> ( <i>Cannot be taken for additional credit.</i> )<br>Former course code/number:<br>Cross-listed with:<br>Equivalent course(s):<br><i>(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.)</i>                                                                                                                                                                                                                                                                           |           | <b>Course Details</b><br>Special Topics course: <b>No</b><br><i>(If yes, the course will be offered under different letter designations representing different topics.)</i><br>Directed Study course: <b>No</b><br><i>(See <a href="#">policy 207</a> for more information.)</i><br>Grading System: <b>Letter grades</b><br>Delivery Mode: <b>May be offered in multiple delivery modes</b><br>Expected frequency: <b>Every other year</b><br>Maximum enrolment (for information only): <b>25</b> |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Typical Structure of Instructional Hours</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Lecture/seminar</td> <td style="text-align: center;">12</td> </tr> <tr> <td>Tutorials/workshops</td> <td style="text-align: center;">33</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td><b>Total hours</b></td> <td style="text-align: center;"><b>45</b></td> </tr> </table>                                                                                                                                                                                              |           | Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 12 | Tutorials/workshops | 33 |  |  |  |  |  |  | <b>Total hours</b> | <b>45</b> | <b>Prior Learning Assessment and Recognition (PLAR)</b><br>PLAR is available for this course. |  |
| Lecture/seminar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| Tutorials/workshops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 33        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Total hours</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>45</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Scheduled Laboratory Hours</b><br>Labs to be scheduled independent of lecture hours: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           | <b>Transfer Credit</b> (See <a href="#">bctransferguide.ca</a> .)<br>Transfer credit already exists: <b>No</b><br>Submit outline for (re)articulation: <b>No</b><br><i>(If yes, fill in <a href="#">transfer credit form</a>.)</i>                                                                                                                                                                                                                                                                |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Department approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           | <b>Date of meeting:</b> November 2, 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Faculty Council approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           | <b>Date of meeting:</b> January 6, 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                           |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |
| <b>Undergraduate Education Committee (UEC) approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | <b>Date of meeting:</b> April 21, 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                     |    |  |  |  |  |  |  |                    |           |                                                                                               |  |



**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. Identify aspects of diversity, self-concept, and perception of "other".
2. Explain the histories of educational exclusion and harm perpetrated on equity-seeking groups in Canada and internationally, including Indigenous peoples.
3. Critique adult education in Canada with respect to the equity, diversity, and inclusion of diverse adult learners (institutions, policies, practice, and behaviours).
4. Identify the impacts of representation and language and how they affect diversity in adult education.
5. Explore culturally relevant, responsive models that acknowledge and address systemic barriers that diverse learners experience (i.e., circle, trauma-informed, intercultural models, cultural safety tenets, medicine wheel, seven teachings and contemplative practices).
6. Demonstrate an attitude of sensitive, on-going reflection that responds to issues of equity, diversity, and inclusion.
7. Apply strategies and pedagogical approaches to foster inclusive learning in adult education contexts that promote reciprocity, cultural safety, and collaborative learning.

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

|              |      |   |   |
|--------------|------|---|---|
| Assignments: | 100% | % | % |
|              | %    | % | % |

**Details:** Diversity artifact video (20%); collaborative dialogic reflection – group (20%); reflection 1 – summary and critique (10%); reflection 2 – summary and critique (10%); case study proposal (10%); case study presentation (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.)

Using a seminar setting, students will engage in small group exercises, case studies, micro-teaching, lectures, and student-led discussions; critical reviews of the literature; presentations; and position papers.

**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. Textbook | Young, I. M.          | Justice and the politics of difference. Princeton University Press.                                                                                                                                                                      | 1990 |
| 2. Textbook | Berila, B.            | Integrating Mindfulness into Anti-Oppression Pedagogy: Social Justice in Higher Education. Routledge.                                                                                                                                    | 2015 |
| 3. Other    |                       | Canadian Charter of Rights and Freedoms, s 7, Part I of the Constitution Act, 1982, being Schedule B to the Canada Act 1982 (UK), 1982, c11                                                                                              | 1982 |
| 4. Other    | Fitznor, L            | Indigenous Education: Affirming Indigenous Knowledges and Languages from A Turtle Island Indigenous Scholar's Perspective: Pikiskewinan (Let us Voice). In Perspectives on Indigenous Writing and Literacies. Brill Academic Publishers. | 2019 |
| 5. Textbook | Freire, P             | Pedagogy of the oppressed. Continuum.                                                                                                                                                                                                    | 2000 |

**Course Content and Topics**

|         |                                                                                                                                                                                        |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Week 1  | Opening; intro and locating yourself on the land; exploring social identity                                                                                                            |
| Week 2  | Bias, stereotypes, and oppression: how do they manifest and what are their impacts?<br>Acknowledging barriers experienced by marginalized learners                                     |
| Week 3  | White privilege, cultural humility, anti-racism, and positionality: looking to the seven sacred teachings                                                                              |
| Week 4  | Mindfulness and mindful listening as strategies to support the work of empathy, equity, and inclusion                                                                                  |
| Week 5  | Language matters: using language and representation to understand threats to diversity and to build classrooms that are inclusive of Indigenous, immigrant, and other diverse students |
| Week 6  | Empathy, working with oppression and trauma, and Indigenous people (in Canada)                                                                                                         |
| Week 7  | Thinking beyond oneself: exploring the relationship between diversity, self-actualization, and community sustainability                                                                |
| Week 8  | Diversity and transformative learning: adult education as liberatory                                                                                                                   |
| Week 9  | Intercultural competence in adult education in domestic and international contexts                                                                                                     |
| Week 10 | Using strategies to foster culturally safe and inclusive learning                                                                                                                      |
| Week 11 | Circle methodologies and medicine wheel                                                                                                                                                |
| Week 12 | Inclusive teaching strategies, strengths-based approaches, arts-based learning                                                                                                         |
| Week 13 | Effective adult education for students with diverse and marginalized identities                                                                                                        |

**Memo for Course Changes**

To: Linda Pardy, Chair, College of Arts Curriculum Committee

From: (Anna Cook, PHIL Department Head)

Date: February 8, 2023

**Subject: Proposal for the discontinuation of PHIL 305, 310, 323, 325, 360, 367, 371, 372**

*Note that even minor changes may result in comments from committees on all aspects of the course.*

1. Summary of changes (select all that apply):

- ☐ Six-year review
- ☐ Number and/or course code
- ☐ Credits and/or total hours
- ☐ Title
- ☐ Calendar description
- ☐ Prerequisites and/or co-requisites
- ☐ Frequency of course offering
- ☐ Learning outcomes
- ☐ Delivery methods and/or texts and resource materials
- ☐ PLAR options, grading system, and/or evaluation methods
- ☒ Discontinuation of course
- ☐ Other – Please specify:

2. Rationale for change:

***These courses have not been offered regularly in years, as many of these courses are tied to the specific expertise of retired faculty.***



## MEMO

---

**To:** LINDA PARDY

**From:** SYLVIE MURRAY

**Cc:** TARA KASZONYI, MARK FISCHER

**Subject:** COURSE DISCONTINUATION BUDGET APPROVAL: PHIL 305, 310, 323, 325, 360, 367, 371, 372, PHILOSOPHY, COLLEGE OF ARTS

**Date:** MARCH 13, 2023

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Dear Linda,

Please accept this memo as confirmation that my office has conducted a budget analysis of the implication of the proposed discontinuation of the courses **PHIL 305, 310, 323, 325, 360, 367, 371, 372**, and I approve the discontinuation of these courses.

Thank you,

A handwritten signature in black ink that reads "Sylvie Murray".

Dr. Sylvie Murray (she/her)  
Dean, College of Arts  
Faculty of Humanities  
Faculty of Social Sciences  
[Sylvie.murray@ufv.ca](mailto:Sylvie.murray@ufv.ca)  
604-854-4515

**Memo for Program Changes**

To: Linda Pardy, Chair, College of Arts Curriculum Committee

From: Tara Kaszonyi, Curriculum and Student Systems Strategist

Date: February 7, 2023

**Subject: Program change Liberal Arts Diploma**

1. Summary of changes (select all the apply):
  - ☐ Program revision that requires new resources
  - ☒ Addition of new course options or deletion or substitution of a required course
  - ☐ Change to the majority of courses in an approved program
  - ☐ Change to the duration, philosophy, or direction of a program
  - ☐ Addition of a new field of specialization, such as a concentration
  - ☐ Change in requirements for admission
  - ☐ Change in requirements for residency or continuance
  - ☐ Change in admission quotas
  - ☐ Change which triggers an external review
  - ☐ Deletion of a program not included in the Program Discontinuance policy
  - ☐ Other – Please specify:
2. Rationale for change(s): **CMNS 120 is being discontinued, so it is being removed as an option to fulfill the writing foundation skill requirement of the Liberal Arts Diploma.**
3. If program outcomes are new or substantially changed, explain how they align with the Institutional Learning Outcomes: **NO**
4. What consideration has been given to Indigenizing the curriculum? **NA**
5. Will additional resources be required? If so, how will these costs be covered? **NA**
6. How will students be impacted? (Indicate the projected number of students impacted.) Is the change expected to increase/decrease enrolment in the program? **There should be no impacts on students, since other options to fulfill the requirement are regularly offered.**
7. Does the number of required core or elective credits from the program-specific discipline change? If so, will this change the total number of courses to be offered within the discipline? **NO**
8. Identify any available resources that will be used to accommodate the program changes. (Eg. seats in existing classes, conversion of sections, timetabling changes, deletion of courses, etc.) **NA**
9. Is the number of required or elective courses from other disciplines in the program changing? If so, what is the estimated impact to enrolments in these courses? Provide a memo from the respective dean(s) of the impacted faculty to confirm if budgetary implications have been considered and addressed. **NA**

10. Provide a memo from the program's dean to confirm that budgetary implications of the proposed changes have been considered and will be addressed within the faculty budget. **See attached.**

**CWC comment and response:**

- Should IDS 100 also be removed from the Critical Thinking requirement now, since it has recently been removed from the BA?

*Yes very good catch! Please remove IDS 100 from the Critical Thinking requirement.*



## MEMO

---

**To:** Linda Pardy  
**From:** Sylvie Murray  
**Cc:** Tara Kaszonyi, Mark Fischer  
**Subject:** Program Changes Budget Approval: Liberal Arts Diploma, College of Arts  
**Date:** MARCH 13, 2023

---

Dear Linda,

Please accept this memo as confirmation that my office has conducted a budget analysis of the proposed changes to the Liberal Arts Diploma and I approve their submission to CACC and UEC for curriculum review.

Thank you,

A handwritten signature in black ink that reads "Sylvie Murray".

Dr. Sylvie Murray (she/her)  
Dean, College of Arts  
Faculty of Humanities  
Faculty of Social Sciences  
[Sylvie.murray@ufv.ca](mailto:Sylvie.murray@ufv.ca)  
604-854-4515

# Liberal Arts diploma

## Program requirements

There are two sets of requirements to note:

1. Program requirements
2. Foundational skills

## Program requirements

1. 60 university-level credits, of which 30 must be completed at UFV
2. Of the 60 credits:
  - 33 credits must be in Arts subjects (Social Sciences, Humanities, or Creative Arts)
  - 27 credits can be in any subject at the university level (100-level and above)
  - At least 24 credits must be 200-level or higher

## Foundational skills (4–5 courses)

| Foundational skill                            | Requirement                                                                                                                                                                                                                                                        | Must be completed           |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| <b>Writing foundation</b>                     | One of <del>CMNS 120</del> , CMNS 125, ENGL 105, an A in English Studies 12 or English First Peoples 12, an A in ENGL 091, or an A in ENGL 099                                                                                                                     | Within the first 30 credits |
| <b>Written, oral, or visual communication</b> | One of AH 100, AH 101, AH 102, AH 204, CMNS 235, CMNS 251, ENGL 210, FREN 101, FREN 102, GD 101, GD 102, GD 157, GERM 101, GERM 102, JAPN 101, JAPN 102, RUSS 101, RUSS 102, SPAN 101, SPAN 102, SPAN 201, SPAN 202, THEA 111, THEA 112, VA 113, VA 115, or VA 116 | Within the first 60 credits |

|                              |                                                                                                                                            |                             |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| <b>Critical thinking</b>     | <del>One of IDS 100 or</del> PHIL 100                                                                                                      | Within the first 30 credits |
| <b>Quantitative literacy</b> | One of ECON 100, ECON 101, GEOG 252, GEOG 253, MATH 105, MATH 110, MATH 111, MATH 123, MATH 140, MATH 141, PSYC 110, STAT 104, or STAT 106 | Within the first 60 credits |
| <b>Scientific literacy</b>   | One of ASTR 101, ASTR 103, ASTR 104, BIO 105, BIO 106, GEOG 103, GEOG 105, GEOG 111, GEOG 116, or GEOG 117                                 | Within the first 60 credits |

Note: Students may not use the same course to meet more than one foundational skill requirement.

Each foundational skill course aligns with specific outcomes.

| <b>Foundational skill</b>                     | <b>Successful students will be able to:</b>                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Writing foundation</b>                     | <ul style="list-style-type: none"> <li>• Demonstrate knowledge of how audience, purpose, and situation shape written communication.</li> <li>• Employ conventions of organization, presentation, formatting, and style in a range of genres.</li> <li>• Use source material ethically and critically in written communication.</li> <li>• Engage in processes of reading, summarizing, critiquing, and citing relevant and credible sources.</li> </ul> |
| <b>Written, oral, or visual communication</b> | <b>Oral communication option:</b> <ul style="list-style-type: none"> <li>• Demonstrate confidence and clarity of purpose when speaking in a public context.</li> <li>• Employ delivery and organization techniques that strengthen reception of the central idea.</li> </ul>                                                                                                                                                                            |



|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              | <ul style="list-style-type: none"><li>• Respond effectively to audience's verbal and non-verbal feedback in the moment of one's speaking.</li><li>• Critique one's own and others' oral presentation skills constructively.</li></ul> <p><b>Visual communication option:</b></p> <ul style="list-style-type: none"><li>• Identify the formal elements of a variety of visual media.</li><li>• Analyze visual media within a critical, contextual framework.</li><li>• Source and use images ethically.</li><li>• Communicate capably with and about images.</li></ul> <p><b>Written communication option:</b></p> <ul style="list-style-type: none"><li>• Write for different audiences, purposes, and situations.</li><li>• Consistently use conventions particular to a specific discipline and/or writing task, including organization, presentation, format, and style.</li><li>• Consistently use credible, relevant sources to support ideas or arguments.</li><li>• Complete all steps in the writing process: pre-writing, drafting, revising, editing, and submission.</li></ul> |
| <b>Critical thinking</b>     | <ul style="list-style-type: none"><li>• Evaluate arguments and their supporting evidence.</li><li>• Examine context, perspective, and assumptions when evaluating and making arguments in various disciplines.</li><li>• Construct rational arguments.</li><li>• Identify and assess counter-arguments to one's position.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Quantitative literacy</b> | <ul style="list-style-type: none"><li>• Explain and interpret information presented in quantitative forms.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | <ul style="list-style-type: none"><li>• Convert relevant information into quantitative forms.</li><li>• Draw conclusions from an analysis of quantitative data.</li><li>• Use quantitative evidence in support of an argument.</li></ul>                                                                                                                                                                                                                                                                                                           |
| <b>Scientific literacy</b> | <ul style="list-style-type: none"><li>• Express positions that are scientifically informed.</li><li>• Evaluate the quality of scientific information based on its source and the methods used to generate it.</li><li>• Articulate the role of observation and experimentation in the development of scientific theories.</li><li>• Identify ethical issues involved in the practice and application of science.</li><li>• Discuss the relevance of science in their lives and how it may affect them in their public and private roles.</li></ul> |

Students planning to apply to the [Bachelor of Arts](#) after completion of the LAD should familiarize themselves with additional BA requirements, particularly the second language competency requirement, as well as the requirements for specific majors, extended minors, and minors.

LAD graduates who ladder into the BA will need to complete ARTS 299 within 15 credits of admission to the degree. PORT 399 will need to be completed between 91 and 120 credits.



## Undergraduate Education Committee Terms of Reference

### RESPONSIBILITIES

1. Advise Senate on curricular matters related to the undergraduate educational programs of the university.
2. Advise Senate on policies, procedures, and criteria for the admission, evaluation, withdrawal, and promotion of undergraduate students.
3. Advise Senate on the criteria for awarding certificates, diplomas, and degrees to undergraduate students.
4. Advise Senate on policies and procedures for review and approval of new and existing courses, programs, or curricular changes.
5. Review the recommendations of faculty councils, approve the recommendations where mandated by Senate to do so, and inform Senate.
6. Advise the Academic Planning & Priorities Committee on proposals for new programs and program revisions that may occasion a change to the alignment of programs with institutional priorities.
7. Make recommendations to Senate on the resolution of disputes between departments and other academic divisions related to undergraduate course and program development and delivery.
8. Establish such subcommittees as needed to fulfill the committee's responsibilities.
9. Other duties as assigned by Senate.

### COMPOSITION

#### Voting Members

- Chair, a faculty member of the committee, nominated by the committee, and approved by Senate
- Vice-Chair, Registrar and Associate Vice-President, Enrolment Management (or designate)
- Nine faculty members, approved by Senate, at least two of whom shall be members of Senate \*
- Two Deans or associate deans approved by Senate
- University Librarian or designated Librarian<sup>†</sup> (ex officio)
- One Academic Advisor approved by Senate
- One staff member approved by Senate
- Two undergraduate students approved by Senate
- Associate Vice-President, Teaching and Learning (or designate) (ex officio)

#### Ex Officio Non-Voting Members

- Provost & Vice-President, Academic (or designate)
- Associate Vice-President, Research, Engagement, and Graduate Studies (or designate)
- Executive Director, UFV International (or designate)
- Senior Advisor on Indigenous Affairs
- Manager, Enrolment Planning

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\* Normally, there shall be at least one member from each of the Faculties, selected to reflect the diversity of disciplines at the university.

<sup>†</sup> Normally, the designate shall be appointed for a minimum of a one-year term to ensure continuity.

- Associate Vice-President, Institutional Research and Integrated Planning (or designate)
- Associate Director, Program Development and Quality Assurance
- Director, Advising Centre (or designate)

**Administrative Support**

- UEC Assistant/Calendar Editor, Office of the Registrar