

## 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 371		<b>Number of Credits:</b> 3 <a href="#">Course credit policy (105)</a>													
<b>Course Full Title:</b> Agroecology <b>Course Short Title:</b> Agroecology															
<b>Faculty:</b> Faculty of Science		<b>Department (or program if no department):</b> Agriculture Technology													
<b>Calendar Description:</b> 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. 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.															
<b>Prerequisites (or NONE):</b>		None.													
<b>Corequisites (if applicable, or NONE):</b>		None.													
<b>Pre/corequisites (if applicable, or NONE):</b>		AGRI 204.													
<b>Antirequisite Courses</b> <i>(Cannot be taken for additional credit.)</i> Former course code/number: <b>AGRI 271</b> Cross-listed with: Equivalent course(s): <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> Special Topics course: <b>No</b> <i>(If yes, the course will be offered under different letter designations representing different topics.)</i> Directed Study course: <b>No</b> <i>(See <a href="#">policy 207</a> for more information.)</i> Grading System: <b>Letter grades</b> Delivery Mode: <b>Face-to-face only</b> Expected frequency: <b>Annually</b> 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> 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> 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> ) Transfer credit already exists: <b>Yes</b> Submit outline for (re)articulation: <b>Yes</b> <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. 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 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)