

SL ADVANCED AGROECOLOGY (ALE/ENVS 3120- 4 CREDITS)

FALL 2024

Jeffords 112

Instructor

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Teaching Assistant:

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COURSE LOGISTICS

Lecture Meeting Times:

- T/Th 8:30-9:40am

Lab Meeting Times:

- Thursday, 1:15 pm – 4:15 pm
- Friday, 9:40 am-12:40 pm

Instructor Office Hours:

All office hours are by appointment. To make an appointment please contact Vic or the TA

OVERVIEW

This course presents an in-depth overview of research and applications in the field of agroecology, with a particular emphasis on the transdisciplinary and principle-based application of agroecology.

In this course students will:

- 1) **develop** a multifaceted understanding of the term ***agroecology and its application across local, regional and global contexts***
- 2) **learn** how agroecological principles and their concomitant practices can be used to ***develop more ecologically resilient and socially just agrifood systems***
- 3) through **hands-on field exercises** in local farming systems, students ***learn practical, ecological and social research and analytical skills***, which are commonly used in agroecology and agrifood systems research;
- 4) **develop** a deep ***understanding of participatory methodologies*** used in agroecological research



5) **explore and experience** a wide range of pedagogical approaches including: *contemplative learning, co-learning, and reflection based-strategies*

This is a service learning course and requires students to contribute a minimum of 12 hours of service working (and learning) with our farmer partners. This is apart from the hours of fieldwork students will dedicate to their agroecological investigations.

COURSE MATERIALS

There are no required textbooks, as all of the material we will read will be provided in electronic form.

COURSE ORGANIZATION

This course is divided into three different class modalities (lectures, discussion recitations, and on-farm “labs”). The rationale for this course organization is support the diverse array of learning styles and preferences that we have in the class.

Class Lectures:

Tuesdays during the semester, we will meet as a full class (all 48 students). During these sessions, we will primarily explore content directly, often through lectures, multi-media, and/or discussions. These sessions will also include guest speakers from various sectors of the food system.

Farm “Labs”:

Laboratory periods will be used to prepare for agroecological investigations, conduct service learning work and do research on partner farms, as well as prepare presentations and reports.

Farm Teams

The class will be divided into 4 farm teams (of approximately 10-12 students) for the on-farm “lab” activities. In lab, these teams will be assigned to a partner farm, where they will conduct service learning and on-farm agroecological investigations. As part of an ALC Undergraduate Research Fellowship, there will be at least 1 ALC Fellow assigned to each team. These Fellows are tasked with leading each farm team and will act as the primary liaison with farmers and will organize sample/data collection.

ASSIGNMENTS

Attendance and Participation (15%)

Attendance is required for all lectures, recitations, and labs. Participation is of utmost importance in this course. We use a model of co-learning and co-creation of knowledge that requires all of our collective voices to be heard and integrated. Students will be given a 10% buffer for missed classes (~2-3 classes) that they might miss due to particular circumstances. Be judicious with your 10%, as we do not offer extra credit for missed participation. Also, please do not come to class if you are not feeling well or exhibiting any symptoms of sickness. Let's be respectful of both our own health and the learning community.

Online Reflective Practice (20%)

Students will submit reflections on selected readings and/or guest presentation. To provide students with a more creative reflective experience, students will submit three different forms of reflection:

- ~6 reflection posts* formats will vary for each reflection and be submitted as one of the following:
- **Prose (*written reflection*)** – your typical written reflection that asks you to provide a short assessment particular content
 - **Art (*poem, painting, drawing, lyrics, song*)** – this does not need to be an original creation. For each art submission provide a brief blurb on what the piece evokes that helps students explore / make meaning of their learning.
 - **Photo** (with a brief blurb on what the photo depicts and what it represents regarding student learning) – in other words, providing a context for why you chose the photo and how it reflects on the topic/reading.

Photo Reflection of on-farm experience (10%)

Reflection is a key element of learning, as it allows us to integrate our experience into our consciousness in an intentional and focused way. For your on-farm experience, you will constructed a photo journal of 5 photos with a reflective caption, on how the photo represents an experience that you had while participating in your 4 week “farmwork” experience.

DUE DATE: October 10, 2024

Research Brief on Biophysical Agroecological Practice (10%)

Research / policy briefs are literature-based and are written for an academic or professional audience. We ask that your brief focus on a particular biophysical agroecological practice and discuss the utility of the practice as it relates to agroecological resilience. Briefs will be 4 pages long, so you must also be succinct. Some biophysical agroecological practices include:

- Cover cropping
- No-till/low-till cropping
- Agroforestry
- Conservation biological control
- Intercropping/Polycultures

- Rotational Grazing
- Terracing/Swales
- Mulching
- Biologically derived pesticides
- Push-pull systems

DUE DATE:

Student Led Discussion (10%)

If participation is a key component of agroecology and agroecological research, it is imperative that we develop skills to effectively communicate knowledge, research, and skills to a vast array of learners. This assignment will task each farm group with developing a educational experience on an agroecological principle of their choosing. Each group will select an agroecological principle and lead a 1-hour class discussion on its practical application in farming or the food system. Groups will be evaluated on their articulation of the principle and real-world examples, in addition to their ability to facilitate an engaging experience that stimulates critical thinking.

DUE DATE: TBD (Oct 29th – Nov 7th)

Most Significant Change Reflection (15%)

Students will be asked to reflect on the most significant change that they have experienced due to course content and/or experiences. This reflection can be written or recorded (audio or visual). Students are also invited to include additional reflective components, such as art, to their written or audio reflections. Written reflections should be around 1000-1200 words.

DUE DATE: Friday 11/21

Agroecological Assessment (20%)

It is designed students to think holistically when assessing the developed to better understand agroecosystem management and farmer livelihoods. Each farm team will be required to hand in a single report based on their multi-dimensional assessment of the farm they are working on. Reports should be no longer than 8 pages. Please keep careful notes during all your research and practice activities, so that you can refer back to them when you write the report. We would like to allow for some measure of creativity for the communication of the analysis.

DUE DATE: Friday 12/09

EXTRA CREDIT

There is no extra credit for the course. If you are struggling with the material, please be proactive and reach out asap. We are happy to find ways to enrich your learning process and provide accurate assessments of your progress. We can also connect you with support resources on campus to help navigate the demands of coursework and personal life during a difficult time.

LATE POLICY

10% will be deducted from assignments for every day late, up to 1 week after the due date. Papers may not be accepted after a week. Please email me or the TA if you are having issues submitting an assignment on time.

COURSE EVALUATION AND ASSESSMENT

The course evaluation is based on the following:

1. Participation (includes in-class & on-farm) 15%
2. Reflections 20%
4. Photo Reflection 10%
5. Research Brief on Biophysical Agroecological Practice 10%
6. Student Led Discussion 10%
7. Most significant change reflection 15%
8. On-Farm Agroecological Assessment 20%

Total 100%

Agroecology Laboratory Schedule 2023

Week Date Location 1 Aug 29 & Sept 30 • Service learning: farm-work with partners Farms 2 Sept 5 & 6 • Service learning: farm-work with partners Farms 3 Sept 12 & 13 • Service learning: farm-work with partners Farms 4 Sept 19 & 20 • Service learning: farm-work with partners Farms 5 Sept 26 & 27 • Soil health sampling training TBD 6 Oct 3 & 4 • Soil health sampling and/or processing Farms 7 Oct 10 & 11 • No Labs 8 Oct 17 & 28 • Soil health sampling and/or processing Farms 9 Oct 24 & 27 • Soil health sampling and/or processing Farms 10 Oct 31 & Nov 1 • Soil health sampling and/or processing Farms 11 Nov 7 & 8 • Interview Prep TBD 12 Nov 14 & 15 • Farmer Interviews TBD 13 Nov 21 & 22 • Farmer Interviews TBD 14 Nov 28 & Nov 29 • Thanksgiving – No Labs

Grading

Generally grades will be posted within 2 weeks after an assignment has been submitted. We try our best to have anything graded in in this time period, but some classes and/or assignments are larger than others. There are 48 students in this class, and reading this many submissions takes a long time. Please be patient and we'll do our best!

In this class I institute a 24 hour “emotional equilibrium rule”.

This rule states:

No grades will be discussed until 24 hours have passed since the receipt of a grade.

Email and Office hours

When emailing me please put "ALE 3120" in the subject line. This allows me to better organize my class communications among other classes. Also, please allow for 24 hours before contacting me again. However, if it is urgent and I have not answered your email, please send another. I receive many emails in a day, it is possible that yours got buried. In which case, I apologize and appreciate a reminder. I do not get offended or upset by multiple correspondences.

Office hours are static but meeting with me is generally flexible. Send me an email and we can set up at time.

Respectful class behavior

1. Students are expected to be courteous and respectful. This includes paying attention (and quiet) when others are speaking and speaking with care towards others.
2. Students are expected to follow the UVM Academic Integrity Code and UVM Code of Student Rights and Responsibilities. Any misconduct will result in disciplinary action.

Note: UVM policy states, "Students have the right to practice the religion of their choice. Each semester, students should submit in writing to their instructors by the end of the second class, their documented religious holiday schedule for the semester. Faculty must permit students who miss work for the purpose of religious observance to make up this work."

Course Evaluations:

All students are expected to complete a formal evaluation of the course at its conclusion. These evaluations will be anonymous and confidential, and that the information gained, including constructive criticisms, will be used to improve the course.

In addition, a mid-term course evaluation will be provided to make on-the-fly adjustments of this course to best address concerns from the classroom community.

Student Learning Accommodations:

In keeping with University policy, any student with a documented disability interested in utilizing accommodations should contact SAS, the office of Disability Services on campus. SAS works with students and faculty in an interactive process to explore reasonable and appropriate accommodations, which are communicated to faculty in an accommodation letter. All students are strongly encouraged to meet with their faculty to discuss the accommodations they plan to use in each course. A student's accommodation letter lists those accommodations that will not be implemented until the student meets with their faculty to create a plan.

Contact SAS:

A170 Living/Learning Center;
802-656-7753;
access@uvm.edu
www.uvm.edu/access

Religious Holidays:

Students have the right to practice the religion of their choice. If you need to miss class to observe a religious holiday, please submit the dates of your absence to me in writing by the end of the second full week of classes. You will be permitted to make up work within a mutually agreed-upon time. <https://www.uvm.edu/registrar/religious-holidays>

Academic Integrity:

The policy addresses plagiarism, fabrication, collusion, and cheating.
<https://www.uvm.edu/policies/student/acadintegrity.pdf>

Grade Appeals:

If you would like to contest a grade, please follow the procedures outlined in this policy:
<https://www.uvm.edu/policies/student/gradeappeals.pdf>

Code of Student Rights and Responsibilities:

<http://catalogue.uvm.edu/undergraduate/academicinfo/rightsandresponsibilities/>

FERPA Rights Disclosure:

The purpose of this policy is to communicate the rights of students regarding access to, and privacy of their student educational records as provided for in the Family Educational Rights and Privacy Act (FERPA) of 1974.
<http://catalogue.uvm.edu/undergraduate/academicinfo/ferparightsdisclosure/>

Promoting Health & Safety:

The University of Vermont's number one priority is to support a healthy and safe community:

Center for Health and Wellbeing:

<https://www.uvm.edu/health>

Counseling & Psychiatry Services (CAPS)

Phone: (802) 656-3340

C.A.R.E.

If you are concerned about a UVM community member or are concerned about a specific event, we encourage you to contact the Dean of Students Office (802-656-3380). If you would like to remain anonymous, you can report your concerns online by visiting the Dean of Students website at <https://www.uvm.edu/studentaffairs>

Alcohol and Cannabis Statement:

The Division of Student Affairs has offered the following statement on alcohol and cannabis use that faculty may choose to include, or modify for inclusion, in their syllabus or Blackboard site:

Statement on Alcohol and Cannabis in the Academic Environment

As a faculty member, I want you to get the most you can out of this course. You play a crucial role in your education and in your readiness to learn and fully engage with the course material. It is important to note that alcohol and cannabis have no place in an academic environment. They can seriously impair your ability to learn and retain information not only in the moment you may be using, but up to 48 hours or more afterwards. In addition, alcohol and cannabis can:

- Cause issues with attention, memory and concentration
- Negatively impact the quality of how information is processed and ultimately stored
- Affect sleep patterns, which interferes with long-term memory formation

It is my expectation that you will do everything you can to optimize your learning and to fully participate in this course.

FALL 2025 TEACHING SCHEDULE

Week	Day	Date	Topic/Theme	Instructor/Guest	Readings/Content (should be read by this date)	Assignment Due	Contemplative Practice
Week 1	T	27-Aug	Introduction and Expectations	Izzo			Izzo
	Th	29-Aug	What is Agroecology	Izzo	Agroecology as a transdisciplinary, participatory, and action oriented approach		Izzo
Week 2	T	3-Sep	Agroecology Frameworks	Izzo	Agroecology as a science, practice, and a social movement		Izzo
	Th	5-Sep		Izzo	Agroecological principles and elements and their implications for transitioning to sustainable food systems.	REFLECTION #1: Prose	Izzo
Week 3	T	10-Sep	Ways of Knowing	Izzo	Philosophy of Native Science - Cajete		Diggers
	Th	12-Sep		Gallegos/Carasco	Caliata Initiative	REFLECTION #2: non-Prose	JSC
Week 4	T	17-Sep	Biodiversity	Izzo	Towards an agroecological approach to crop health		HREC
	Th	19-Sep	Nutrient Cycling	Madden	Farmers experiences with cover crops and overcoming barriers		B&B
Week 5	T	24-Sep	Soil Health	Faulkner	No Reading	REFLECTION #3: Photo	Diggers
	Th	26-Sep	Ecological Pest Management	Izzo	Bottom-Up Forces in Agroecosystems and Their Potential Impact on Arthropod Pest Management		JSC
Week 6	T	1-Oct	Ecological Pest Management	Izzo	On-farm evaluation of swede midge, <i>Contarinia nasturtii</i> (Diptera:Cecidomyiidae), susceptibility among four popular kale varieties	REFLECTION #4: Prose	HREC
	Th	3-Oct	PAR	Izzo	Tradeoffs of a rising agroecological practice: addressing uncertainty around tarping with participatory action research and mixed methods		B&B

Week 7	T	8-Oct	Agroforestry	Nikfarjam	Agroforestry for Food Production, Ecological Restoration, and Social Equity in the Northeast		Diggers
	Th	10-Oct	PAR	Gerlicz	TBD	PHOTOJOURNAL	JSC
Week 8	T	15-Oct	Diversification	Anderzen	Effects of on-farm diversification strategies on smallholder coffee farmer food security and income sufficiency in Chiapas, Mexico		HREC
	Th	17-Oct	Food For Farmers	Marcela Pino	TBD	REFLECTION #5: non-Prose	B&B
Week 9	T	22-Oct	Participatory Breeding.	Bishop vonWettburg	TBD		Diggers
	Th	24-Oct	TBD	Darby	TBD		JSC
Week 10	T	29-Oct	Principles/Ecological	Farm Team	TBD		HREC
	Th	31-Oct	Principles/Socio-cultural	Farm Team	TBD	REFLECTION #6: Photo	B&B
Week 11	T	5-Nov	Principles/Economic	Farm Team	TBD		Diggers
	Th	7-Nov	Principles/Political	Farm Team	TBD		JSC
Week 12	T	12-Nov	Institute for Agroecology	Mendez		RESEARCH BRIEF	HREC
	Th	14-Nov	Social Movements	Molly Willis			B&B
Week 13	T	19-Nov	Social Movements	Film			Izzo
	Th	21-Nov	Transformative Agroecology	Horner/Caswell		MOST SIGNIFICANT CHANGE	Izzo

Week 14	T	26- Nov			Thanksgiving recess		
	Th	28- Nov			Thanksgiving recess		
Week 15	T	3- Dec	Final Presentations				
	Th	5- Dec	Final Presentations			FINAL AGROECOLOGICAL ASSESSMENT	

