

INTRODUCTION TO AGROECOLOGY (PSS 1210)

3 CREDITS

Spring 2025

Fleming 101

TTh 11:40am-12:55 PM

Instructor: Vic Izzo, Ph.D.

vizzo@uvm.edu

Office: Jeffords 235

Office hours: Online by Appointment

Teaching Assistants:

Graduate TA

Eli Wilson Eli.Wilson@uvm.edu – Last Names → A - B

Undergraduate TAs:

Katie Monacella Katherine.Monacella@uvm.edu – Last Names → C -D

Kendall Muzzy Kendall.Muzzy@uvm.edu – Last Names → E - H

Katie Lubbe Katie.Lubbe@uvm.edu Last Names → I - M

Louise Vaillancourt Louise.Vaillancourt@uvm.edu -- Last Names → N - R

Maria Muller Maria.Muller@uvm.edu -- Last Names → S - Z

Course Ethos

“I value you and all that you bring to the course. This is a learning community built upon reciprocity and horizontal learning. Open your heart and mind and we’ll have an exciting journey as we explore, build and share our knowledge and experiences. We are all doing the best we can given our individual context.”

Pre-requisites for this course: There are no prerequisites for this course

This course is an SU course and therefore satisfies a sustainability requirement.

This course is an N1 course and therefore satisfies a natural science requirement.

Course Description: This course provides students with an introduction to ecological agriculture with a strong emphasis on vegetable production and the ecological, social, economic issues surrounding the production of food. Through a combination of lectures, discussions, written reflections, events, readings, and films, we cover a broad variety of topics related to agriculture and the environment in local, national, and international contexts. The course analyzes factors driving current agricultural production systems, the problems associated with an industrial agriculture model, and a variety of approaches and practices for producing food in an ecologically sound manner.

Learning outcomes:

Students will leave the course able to:

- 1) articulate the historical roots and underpinnings of the current conventional agricultural system
- 2) identify and describe the major **elements** (soil, plants, pests, diseases) of an agroecosystem
- 3) understand and apply knowledge regarding the diverse array of agricultural **practices** (IPM, no-till, intercropping, crop rotation, cover cropping), and **key issues** associated with ecological agriculture.
- 4) compare and contrast the different approaches to ecological agriculture
- 5) evaluate and critically discuss socioeconomic issues inherent to local and national food production systems

BRIGHTSPACE:

All course materials will be provided via BRIGHTSPACE. If there are missing materials or access is not easily found, please contact me so I can fix that issue.

All submissions for the course will be executed via Blackboard. I will not accept any hard copies for assignments. In addition, all assignments will be graded via the blackboard rubric grading system.

Late Submissions

Late submissions will be docked 10% for each day past the due date. After one week (7 days), submissions will not be graded.

Assessment	Percentage
Exam 1	12.5%
Exam 2	12.5%
Reflections	15%
News Article	10%
Quizzes	12.5%
Crop Fact Sheet	12.5%
Participation (iClicker)	10%
Final Exam	15%

Total 100%

Reflection:

Over the course of the semester, you will be asked to reflect upon a subset of the readings provided to you. Be aware, that even though you are not required to submit reflections for all of the readings, it is important (imperative) that you read all of the material, if you would like to succeed on the exam assessments. I will drop the lowest reflection grade.

Generally, reflections will be structured in the same fashion, they should be about **300-400 words** and unless specific prompts are provided you will be asked to comment on the following:

1. General objectives/purpose of the article or reading.
2. Provide what was most interesting to you and why.
3. Identify how the reading connects with your experience or the material we have covered previously.
4. Provide a multiple-choice question based on the reading. (with an answer)

Crop Fact Assignment:

Students will be provided with a specific vegetable to develop a “fact sheet” the history, physiological, and pest management strategies for a particular crop. The fact sheet will be roughly 1600 words.

Submissions will be divided into 2 components:

1. Physiology and Growing Conditions (800 words)
2. Pest Management (800 words)

The complete assignment details may be found in the Course Materials folder.

News Article Reflection:

For this reflection you will be asked to find a news or popular media article that discusses a topic that we recently discussed in the course. The article should be from a credible source, such as a major news outlet, science journal, or respected environmental organization. The article should be recent, ideally published within the last year.

Submission Guidelines

- Students will be divided alphabetically into 10 groups, each corresponding to one week of the semester. You must submit your reflection during the week assigned to you. Please check the schedule for your week and be sure to submit by Sunday evening 10pm.
- Submit both the article and your reflection to Brightspace by the specified deadline on the course schedule.
- A few students will be invited to share their article and reflection with the class each week. Be prepared to discuss your article and insights during the week of your submission.

Quizzes:

There will be handful of quizzes throughout the semester. These quizzes are not necessarily assessments for me, though they will be graded and a part of your final grade. The primary purpose of these quizzes are for self-assessment and to provide you with an example of the types of questions that you might see on the associated multiple-choice exams. You may take each quiz 3 times.

Participation:

iClicker

We will be using the iClicker Cloud app in class. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message.

If you have already signed up for iClicker in another course, you should be all set. Else, you should have received an email that provided you with instructions.

Participation and Attendance Policies:

There is no attendance policy for this course. I do not take attendance nor do I record late arrivals or early departures. It is unnecessary to contact me if you are going to miss a class, unless it is an extended period that would require particular arrangements. In the event of a missed class it is your responsibility to be sure that you retrieve any information that you may have missed. It is not unprecedented that I may change an assignment (e.g. due dates, specifics, etc.) or add a short assignment in class. These changes are not guaranteed to be posted to Blackboard in a timely manner. Therefore, it is your responsibility that you seek out what you have missed.

In addition, iClicker grades are adjusted at the end of the semester with a 10% correction for missed questions. This means that all students receive 10% “free” questions to make up any missed classes or technical difficulties. This 10% mark-up also takes into account sick days or unexpected events. I do not allow for participation “retakes” or adjustments.

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 120-150 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 1210” 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 other are speaking and speaking with care towards others.
2. Students are asked to extend grace for others as we navigate new ways of speaking and perhaps experiencing new ways of relating. We are trying our best.
3. 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

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>

Final Exam Policy:

The University final exam policy outlines expectations during final exams and explains timing and process of examination period. <https://www.uvm.edu/registrar/final-exams>

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.

COURSE SCHEDULE

DATES			SCHEDULE OF ACTIVITIES	READINGS/CONTENT	ASSIGNMENTS
CONTEXTUALIZATION OF CONTEMPORARY AGRICULTURE					
WEEK 1	T	16-Jan	Introductions; Course overview; What is Agriculture?	Reading: Future of Food	

	Th	18-Jan	Domestication and the evolution of agriculture	Reading: Seeds of Resistance Chapter 2	REFLECTION #1 DUE: Future of Food
WEEK 2	T	23-Jan	Domestication and the evolution of agriculture		PRE-Course Survey DUE
	Th	25-Jan	The Industrial Agricultural Model	Reading: The woman who saved economics from disaster.	
WEEK 3	T	30-Jan	The Industrial Agricultural Model	Reading: Green Revolution 2.0	Syllabus Quiz #1
	Th	1-Feb	The Dust Bowl (NO CLASS)	Reading: Lessons from the aftermath of the Green Revolution	Topic Quiz #1

THE AGROECOSYSTEM

WEEK 4	T	6-Feb	Soils	Reading: Growing a revolution (chapter)	REFLECTION #2: Lessons from the aftermath of the Green Revolution
	Th	8-Feb	Soils Continued	Reading: Part 1 Building Soils for Better crops	
WEEK 5	T	13-Feb	Guest Speaker: Terry Bradshaw		
	Th	15-Feb	The Industrial Agricultural Model	Reading: Teaming with Nutrients	
WEEK 6	T	20-Feb	Soils		
	Th	22-Feb	Soils		TOPIC QUIZ #2
WEEK 7	T	27-Feb	Nutrient Management	Reading: Teaming with Nutrients	

	Th	29-Feb	Ecological Pest	Reading: Ecological Pest Management Chapter	
WEEK 8	T	5-Mar	Online review		
	Th	7-Mar	Exam #1		
WEEK 9	T	12-Mar	Spring Recess		
	Th	14-Mar	Spring Recess		
ALTERNATIVE APPROACHES					
WEEK 10	T	19-Mar	Organic Agriculture	READING: CHAPTER ALTERNATIVE AGRICULTURE – This chapter will support this entire module.	
				Readings:	
				• Organic Agriculture and 21st Century	
				• Are the claimed benefits of organic justified?	
	Th	21-Mar	Organic Agriculture Continued		
WEEK 11	T	26-Mar	Conservation Agriculture	Reading: Dirt to soil (Gabe Brown)	Crop Fact sheet #1
	Th	28-Mar	Permaculture	Reading: Gaia's Garden Chapter	

WEEK 12	T	2-Apr	Polycultures and Push Pull Systems	Reading: On Straw Revolution	
	Th	4-Apr	Regenerative Agriculture	Reading: Forget peanuts. George Washington Carver's environmental legacy is the real story.	
WEEK 13	T	9-Apr	Regenerative Agriculture cont...		REFLECTION #4: Forget peanuts. George Washington Carver's environmental legacy is the real story.
	Th	11-Apr	Exam Review		Crop Fact Sheet #2 DUE

14	T	16-Apr	Exam #2		
WEEK	Th	18-Apr	Agroecology	Reading: Agroecology as a means to transform the food system	
WEEK 15	T	23-Apr	Agroecology cont...		REFLECTION #5: Agroecology as a means to transform the food system
	SOCIAL MOVEMENTS				
	Th	25-Apr	Climate Change and Agroecology: The ants and the grasshopper (film)	FILM- watch Food Chains	Topic Quiz #3
WEEK 16	T	30-Apr	Reflection on films		REFLECTION #6: Food Chains (film)
	Th	2-May	Review for Final		

FINAL	Th	9-May	FINAL Exam 1030am – 1:15pm (FLEMING 101)	
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