

DSSC 8310

Critical Approaches to Agroecology

(1 credit)

Instructor: Julie Grossman, Department of Horticultural Science, jgross@umn.edu

Objectives

The objectives of this course are to:

- Comprehend and critique the notion of agroecology as a synthesis of “science, practice, and movement”,
- Become familiar with agroecological initiatives and movements in Minnesota
- Develop a personal/professional identity and values-based statement, with recognition of one’s positionality and learning processes

Meeting

Thursdays 2-3:30 pm

394 Alderman Hall, or virtual with instructor consent

Course Description

The course will examine the field of agroecology, which is often framed aspirationally as a synthesis of “science, practice, and movement”. Thus framed, agroecology aims to directly engage complex challenges in agricultural, food, and environmental systems by complementing scientific inquiry with work in practical and political domains. As such, agroecology is an effort to increase the agency of science in the face of grave global problems, such as climate change. Agroecology is a rapidly-growing endeavor, with many nodes of activity wherever agriculture is practiced. However, development of the practical basis of synthesis of science, practice, and movement in agroecology represents a major—and fascinating—challenge. We believe that critical and creative assessment of this challenge offers much to any academic interested in building both personal and societal agency to address wicked global problems.

In the course, we will use critical reading and inter- and trans-disciplinary dialogue to examine the conceptual and practical basis of agroecology as science, practice, and movement. The goal is to better define our personal and collective identities and practices as academics concerned with wicked problems. We will begin by exploring the origins, conceptual basis, and practical operation of agroecology as a synthesis of science, practice, and movement. We will explore agroecological context in academic spaces (ie, Extension and Research in agricultural universities), and in social movements, a perspective that raises provocative questions of how science and practice relate to politics. As a culmination of the semester, we will conclude the course by developing personal statements describing our identities as individual and collective actors seeking agency in the face of complex problems.

Format

Class will be discussion based, with a team of 2 students leading each weekly discussion. Exceptions include one day when we have a guest speaker, and the first and last days, on which papers are assigned but no discussion. As we are all coming from different disciplines, we will do whatever it takes to create a

culture of questioning, and a comfort with the unknown. I strongly encourage students to seek clarification on terms, concepts, theories etc, and to ground comments in concrete examples. If examples are not providing a picture of a term you are using, I may ask you for clarification! Near the end of our seven weeks together, we will individually develop a vision for including agro-ecological practice in our personal and professional lives.

Schedule (subject to updates)

Date	Homework (please complete prior to class unless otherwise noted)	Class Topics & Activities
Week 1 10/26	<p>Wezel, A., Herren, B. G., Kerr, R. B., Barrios, E., Gonçalves, A. L. R., & Sinclair, F. (2020). Agroecological principles and elements and their implications for transitioning to sustainable food systems. A review. <i>Agronomy for Sustainable Development</i>, 40, 1-13.</p> <p>Food and Agriculture Organization (FAO) (2018) <i>The 10 elements of agroecology: Guiding the transition to sustainable food and agricultural systems</i>. pp 1-15, FAO, Rome, Italy.</p>	<p><i>Foundations of Agroecology</i></p> <ul style="list-style-type: none"> ● Course introduction ● Who are we? Class introductions ● Discussion leadership ● In-class discussion ● Sign up for papers
Week 2 11/02	<p>Anderson, C.R.; Bruil, J.; Chappell, J.; Kiss, C. Pimbert, M.P. (2020). Introduction and Agroecology and Sustainability Transformations. <i>In: Agroecology Now! Transformations Towards More Just and Sustainable Food Systems</i>. Palgrave Macmillian publishing. Pages 1-6 and 11-28. DOI: https://doi.org/10.1007/978-3-030-61315-0</p> <p>High Level Panel of Experts Report #14. (2019). <i>Agroecological and Other Innovative Approaches for Sustainable Agriculture and Food Systems That Enhance Food Security and Nutrition</i>. Rome: High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security. p1-21. Read Summary and Recommendations only.</p>	<p><i>Agroecological Transformations</i></p> <p>Luiza Chau</p>
Week 3 11/09	<p>Dittmer, Kyle M., et al.(2023) "Agroecology can promote climate change adaptation outcomes without compromising yield in smallholder systems." <i>Environmental Management</i> 72.2: 333-342.</p> <p>Bellamy, A. S., & Ioris, A. A. R. (2017). "Addressing the Knowledge Gaps in Agroecology and Identifying</p>	<p><i>Elements of Diversity, Recycling and Efficiency</i></p> <p>Joan Christina</p>

	Guiding Principles for Transforming Conventional Agri-Food Systems". Sustainability, 9(3). doi:10.3390/su9030330	
Week 4 11/16	<p>Utter, Alisha, et al. (2021) "Co-creation of knowledge in agroecology." <i>Elem Sci Anth</i> 9. : 00026</p> <p>Wauters, V.M., and Hoidal, N. (2022) "Horizontalism and Wisdom Dialogues to Build Trust: A Case Study of Collaborations With Immigrant Farmers in Minnesota". <i>Frontiers in Sustainable Food Systems</i> 6 (2022): 872751.</p> <p>Guest speaker: KaZoua Berry</p>	<p><i>Elements of Co-creation and Sharing of Knowledge</i></p> <p>Homework introduction: Developing a personal statement on your agroecological identity.</p> <p>Just come with question; no collective discussion on papers.</p>
Week 5	No class - Thanksgiving	
Week 6 11/30	<p>Mugwanya, N. (2019). Why agroecology is a dead end for Africa. <i>Outlook on Agriculture</i>, 48(2), 113-116. doi:10.1177/0030727019854761</p> <p>Conrow, J. (2020) <i>Agroecology must be based in reality, not romanticism, panelists agree.</i> https://geneticliteracyproject.org/2020/10/05/agroecology-must-be-based-in-reality-not-romanticism-panelists-agree/ Alliance for Science. Accessed: 10/01/2023</p>	<p><i>Critiquing the Agroecological Framework</i></p> <p>Sutirtha Nevada</p>
Week 7 12/7	<p>Care, O., Bernstein, M.J., Chapman, M. et al. Creating leadership collectives for sustainability transformations. <i>Sustain Sci</i> 16, 703–708 (2021). https://doi-org.ezp3.lib.umn.edu/10.1007/s11625-021-00909-y</p> <p>Nicklay, Jennifer A., Sharon V. Perrone, and Vivian M. Wauters. "Becoming agroecologists: A pedagogical model to support graduate student learning and practice." <i>Frontiers in Sustainable Food Systems</i> 7 (2023): 770862.</p>	<p><i>Embedding Agroecology into the Everyday</i></p> <p>Charting our paths by embedding agroecological concepts of horizontality, collective critical thinking and an ethic of care into our future and current selves.</p> <p>Julie lead, Natalie guest</p>

Grading and Assignments

Discussion Leadership (10 points). Once during our course, you will work with a peer to lead the class discussion. Details are found on the Assignment tab on the left-hand menu on Canvas. Grading rubric is found at the bottom of the Discussion Tips handout in Module week 1.

Preparation and Participation (24 pts = 4/class)

All class participants are expected to read assigned articles prior to the class indicated. Participants are also expected to participate in class discussions.

Attendance = 2 pts (-1 pt for arriving late or leaving early > 10 minutes, unless otherwise approved)
Following Guidelines for Participation: 2 pts (-1 pt for texting, etc.)

Reflective Writings (minimum 500 words, 25 pts = 5 pts/class)

Each week you will write and submit a short reflective writing on the assigned reading, due 11:59 each Wednesday evening. The submission must include 1) a short summary of the assigned paper, and 2) reflective commentary on the paper, including reference to your own field and discipline. Refer to the assignment in Canvas for more detailed prompts.

Statement of Agroecological Identity (25 pts)

During the final weeks of the semester, we will work on drafting a values-based statement of personal identity, ideals, and intent. Ideally, this document will be a living document that you can use throughout your career. Suggested guidelines for this statement will be forthcoming on Canvas.

Grading Policy

S/N

All course activities will be given a numerical grade as a percentage of potential course credit as noted above, so as to determine a final percentage of potential course credit for the semester. Following UMN standards, we will consider a numerical grade equal or greater than 70% of potential credit as earning a course grade of "S".

University Policies

Students are expected to familiarize themselves with the key University policies as described below and more fully at the links given.

Student Conduct Code

The University seeks an environment that promotes academic achievement and integrity, that is protective of free inquiry, and that serves the educational mission of the University. Similarly, the University seeks a community that is free from violence, threats, and intimidation; that is respectful of the rights, opportunities, and welfare of students, faculty, staff, and guests of the University; and that does not threaten the physical or mental health or safety of members of the University community. As a student at the University you are expected to adhere to Board of Regents Policy: *Student Conduct Code*.

To review the Student Conduct Code, please see:

http://regents.umn.edu/sites/regents.umn.edu/files/policies/Student_Conduct_Code.pdf.

Use of Personal Electronic Devices in the Classroom

Using personal electronic devices in the classroom setting can hinder instruction and learning, not only for the student using the device but also for other students in the class. Consequently, the University establishes the right of each faculty member to determine if and how personal electronic devices are allowed to be used in the classroom. For complete information, please reference:

<http://policy.umn.edu/education/studentresp>.

Scholastic Dishonesty

You are expected to do your own academic work and cite sources as appropriate. Failing to do so is scholastic dishonesty. Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis. (Student Conduct Code: http://regents.umn.edu/sites/regents.umn.edu/files/policies/Student_Conduct_Code.pdf) If it is determined that a student has cheated, he or she may be given an "F" or an "N" for the course, and may face additional sanctions from the University. For additional information, please see:

<http://policy.umn.edu/education/instructorresp>.

The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty:

<http://www1.umn.edu/oscai/integrity/student/index.html>. If you have additional questions, please clarify with your instructor for the course. Your instructor can respond to your specific questions regarding what would constitute scholastic dishonesty in the context of a particular class.

Makeup Work for Legitimate Absences

Students will not be penalized for absence during the semester due to unavoidable or legitimate circumstances. Such circumstances include verified illness, participation in intercollegiate athletic events, subpoenas, jury duty, military service, bereavement, and religious observances. Such circumstances do not include voting in local, state, or national elections. For complete information, please see:

<http://policy.umn.edu/education/makeupwork>.

Appropriate Student Use of Class Notes and Course Materials

Taking notes is a means of recording information but more importantly of personally absorbing and integrating the educational experience. However, broadly disseminating class notes beyond the classroom community or accepting compensation for taking and distributing classroom notes undermines instructor interests in their intellectual work product while not substantially furthering instructor and student interests in effective learning. Such actions violate shared norms and standards of the academic community. For additional information, please see:

<http://policy.umn.edu/education/studentresp>.

Grading and Transcripts

The University utilizes plus and minus grading on a 4.000 cumulative grade point scale. For additional information, please refer to: <http://policy.umn.edu/education/gradingtranscripts>.

Sexual Harassment

"Sexual harassment" means unwelcome sexual advances, requests for sexual favors, and/or other verbal or physical conduct of a sexual nature. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive working or academic environment in any University activity or program. Such behavior is not acceptable in the University setting. For additional information, please consult Board of Regents Policy: <http://regents.umn.edu/sites/regents.umn.edu/files/policies/SexHarassment.pdf>

Equity, Diversity, Equal Opportunity, and Affirmative Action

The University provides equal access to and opportunity in its programs and facilities, without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. For more information, please consult Board of Regents Policy: http://regents.umn.edu/sites/regents.umn.edu/files/policies/Equity_Diversity_EO_AA.pdf.

Disability Accommodations

The University of Minnesota is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations.

If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact Disability Resource Center at 612-626-1333 to arrange a confidential discussion regarding equitable access and reasonable accommodations.

If you are registered with Disability Resource Center and have a current letter requesting reasonable accommodations, please contact your instructor as early in the semester as possible to discuss how the accommodations will be applied in the course.

For more information, please see the Disability Resource Center website, <https://diversity.umn.edu/disability/>.

Mental Health and Stress Management

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance and may reduce your ability to participate in daily activities. University of Minnesota services are available to assist you. You can learn more about the broad range of confidential mental health services available on campus via the Student Mental Health Website: <http://www.mentalhealth.umn.edu>.

Academic Freedom and Responsibility:

Academic freedom is a cornerstone of the University. Within the scope and content of the course as defined by the instructor, it includes the freedom to discuss relevant matters in the classroom. Along with this freedom comes responsibility. Students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters

of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.*

Reports of concerns about academic freedom are taken seriously, and there are individuals and offices available for help. Contact the instructor, the Department Chair, your adviser, the associate dean of the college, or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost.

** Language adapted from the American Association of University Professors "Joint Statement on Rights and Freedoms of Students".*