

**Fundamentals of Sustainable Agriculture**  
SPH E 530 (E417 & E555)  
Fall 2020

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**Class Schedule:** Wednesday 4:55-6:10 (Online) and Friday, 8:00-12:00 (@ IU Campus Farm or Online)

**Course Description:** This course will present the fundamentals of specialty crop and animal sustainable agriculture based on an agroecological framework. We will focus our attention on local and regional agriculture. Students will learn about and apply ecological, social, and economic concepts in evaluating for farm sustainability. The course includes both “in-class” and field lab experiences. Participation, observation, and thoughtful, open discussion will be essential to successful learning. Lectures will include overviews of the basic principles and practices guiding ecological farming systems.

**Required Texts & Readings:**

- *Farming While Black (2018)* by Leah Penniman
- *Freedom Farmers (2018)* by Monica White

**Learning Outcomes:**

1. Learn the foundational principles and practices of managing biodiverse, ecologically based farming systems.
2. Develop a clear understanding of how small scale, ecological farming communities are developing and what they look like, in Indiana and elsewhere.
3. Develop critical and creative thinking skills for evaluating the social, economic, political, and environmental context for current and future sustainable agriculture production.
4. Demonstrate ability and knowledge to intelligently and clearly discuss the basic principles and practices governing sustainable food and farming systems.

**Teaching and Learning Methods:** Field observation and farm visits and service learning, lectures, readings, student presentations, discussions, podcasts, films, written reflections, etc.

**Expectations:**

1. Each person is responsible for their own learning but as a class we can greatly enhance each other's understanding and engagement.
2. In order to function well as a learning community, we must all do our part and come to class prepared to engage one another and the material. This means always reading and reflecting on the assigned materials and thoughtfully preparing questions and information to share with the group.

3. The farms and farmers we visit as a class deserve the utmost respect. We will be visitors to their places of business and homes, taking up their valuable time. Each student is expected to conduct themselves politely and positively, with the utmost decorum.

### **O'Neill School expectations of civility and professional conduct<sup>1</sup>**

The O'Neill School takes matters of honesty and integrity seriously because O'Neill is the training ground for future leaders in government, civic organizations, health organizations, and other institutions charged with providing resources for the public, and for members of society who are vulnerable and who are lacking in power and status. Precisely because O'Neill graduates tend to rise to positions of power and responsibility, it is critical that the lessons of honesty and integrity are learned early.

O'Neill requires that all members of its community – students, faculty, and staff – treat others with an attitude of mutual respect both in the classroom and during all academic and nonacademic activities outside the classroom. A student is expected to show respect through behavior that promotes conditions in which all students can learn without interruption or distraction. These behaviors foster an appropriate atmosphere inside and outside the classroom:

- Students are expected to attend class regularly and to be prepared for class.
- Students must be punctual in their arrival to class and be present and attentive for the duration of the class. Eating, sleeping, reading the newspaper, doing work for another class, wandering in and out of the classroom, and packing up or leaving class early are not civil or professional behaviors.
- Students must abide by the course policy regarding use of electronic devices in the classroom.
- Students must responsibly participate in class activities and during team meetings.
- Students must address faculty members, other students, and others appropriately and with respect, whether in person, in writing, or in electronic communications.
- Students must show tolerance and respect for diverse nationalities, religions, races, sexual orientations, and physical abilities.
- Students must not destroy or deface classroom property nor leave litter in the classroom.

### **Class Guidelines, Policies, and Services:**

1. As your instructor, one of my responsibilities is to create a positive learning environment for all students. **Bias incidents** (events or comments that target an individual or group based on age, color, religion, disability, race, ethnicity, national origin, sex, gender, gender identity, sexual orientation, marital status or veteran status) are not appropriate in our classroom or on campus. What should you do if you witness or experience a bias incident? See it? Hear it? Report it by submitting a report online ([biasincident.indiana.edu](https://biasincident.indiana.edu)) or calling the Dean of Students Office (812-855-8187).
2. **Dean on Call.** The Dean of Students office provides support for students dealing with serious or emergency situations after 5 p.m. in which an immediate response is needed and which cannot

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<sup>1</sup> These expectations are excerpted from the O'Neill School Honor Code which can be found at: [https://oneill.indiana.edu/doc/undergraduate/ugrd\\_student\\_honorcode.pdf](https://oneill.indiana.edu/doc/undergraduate/ugrd_student_honorcode.pdf)

wait until the next business day. Faculty or staff who are concerned about a student's welfare should feel free to call the Dean on Call at (812) 856-7774. This number is not to be given to students or families but is for internal campus use only. If someone is in immediate danger or experiencing an emergency, call 911.

3. **Food Security Assistance:** <http://crimsoncupboard.indiana.edu/home.php> and <https://www.mhcfoodpantry.org/>
4. **Counseling and Psychological Services** For information about services offered to students by CAPS: <http://healthcenter.indiana.edu/counseling/index.shtml>.
5. **Disability Services for Students:** Securing accommodations for a student with disabilities is a responsibility shared by the student, the instructor and the DSS Office. For information about support services or accommodations available to students with disabilities, and for the procedures to be followed by students and instructors: <https://studentaffairs.indiana.edu/student-support/disability-services/index.html>.
6. **Sexual Harassment:** As your instructor, one of my responsibilities is to help create a safe learning environment on our campus. Title IX and our own Sexual Misconduct policy prohibit sexual misconduct. If you have experienced sexual misconduct, or know someone who has, the University can help.

If you are seeking help and would like to talk to someone confidentially, you can make an appointment with:

- i. The Sexual Assault Crisis Service (SACS) at 812-855-8900
- ii. Counseling and Psychological Services (CAPS) at 812-855-5711
- iii. Confidential Victim Advocates (CVA) at 812-856-2469
- iv. IU Health Center at 812-855-4011

For more information about available resources:  
<http://stopsexualviolence.iu.edu/help/index.html>.

It is also important to know that federal regulations and University policy require me to promptly convey any information about potential sexual misconduct known to me to our campus' Deputy Title IX Coordinator or IU's Title IX Coordinator. In that event, they will work with a small number of others on campus to ensure that appropriate measures are taken and resources are made available to the student who may have been harmed. Protecting a student's privacy is of utmost concern, and all involved will only share information with those that need to know to ensure the University can respond and assist. I encourage you to visit <http://stopsexualviolence.iu.edu/help/index.html> to learn more.

7. **Reporting Conduct and Student Wellness Concerns.** All members of the IU community including faculty and staff may report student conduct and wellness concerns to the Division of Student Affairs using an online form located at <https://studentaffairs.indiana.edu/dean-students/student-concern/index.shtml> or <https://studentaffairs.indiana.edu/office-student-ethics/file-a-report.shtml>.

8. **Students needing additional financial or other assistance.** The Student Advocates Office can help students work through personal and academic problems as well as financial difficulties and concerns in order to help students progress towards earning a degree. The Office also provides support and assistance to students in working through grade appeals and withdrawals from all classes. In addition to advising student on appeal and financial issues such as financial aid or tuition, they also have emergency funds for IU students experiencing emergency financial crisis <https://studentaffairs.indiana.edu/student-advocates/>.
9. **Late Assignments:** Hand in assignments on time!
10. **Missed Exams:** Missed exams cannot be made up unless for reasons spelled out the attendance policy or circumstances cleared with me ahead of time.
11. **Communication:** Email is the best way to get hold of me: [jafarmer@indiana.edu](mailto:jafarmer@indiana.edu). Please note it may take me 24 hours to respond to your message. Many times I don't check email on weekends. If you need to get in touch with me immediately because of an **emergency**, please call 812-558-0674.
12. **Religious Observation:** In accordance with the Office of the Dean of Faculties, any student who wishes to receive an excused absence from class must submit a request form available from the Dean of Faculties for each day to be absent. This form must be presented to the course instructor by the end of the second week of this semester. A separate form must be submitted for each day. The instructor will fill in the bottom section of the form and then return the original to the student. Information about the policy on religious observation can be found at the following website: <https://policies.iu.edu/policies/aca-59-accommodation-religious-observances/index.html>.
13. **Academic Honesty and Plagiarism:** Indiana University policies on academic misconduct as presented in the most current Code of Student Ethics will be followed. Please refer to the full policy at <http://www.iu.edu/~code/code/responsibilities/academic/index.shtml>. Cheating is considered to be an attempt to use or provide unauthorized assistance, materials, information, or study aids in any form and in any academic exercise or environment. Cheating includes but is not limited to giving or receiving answers on assignments and test or using any materials or aids pertinent to assignments and tests without permission of the instructor. Any forms of cheating will be penalized under the discretion of the instructor.

It is your responsibility to understand what constitutes plagiarism. Plagiarism is defined as the intentional act of representing the words of another, as one's own in any academic exercise. Plagiarism may occur on any paper, report, or other work submitted to fulfill course requirements. This includes submitting work done by another, whether a commercial or non-commercial enterprise, including web-sites, as one's own work. Works that include copied sentences or paragraphs without proper citations, as well as entire articles, sections of books, periodicals, web articles, work from other students, are all considered forms of plagiarism. You can find more information on what constitutes plagiarism from an APA manual or at the above website. Plagiarism is grounds for failing assignments and the course. All students at Indiana

University are responsible for knowing the rules governing academic conduct. All written assignments will be submitted to Turnitin.com and saved within the repository.

According to a new policy on academic misconduct, all staff are required to report the incident within 14-days to the Dean of Students, regardless of whether you meant to plagiarize or not. It is for your benefit that you know what it is and how to prevent it. The following link will test your knowledge on plagiarism: <https://www.indiana.edu/~tedfrick/plagiarism/index2.html>

**Note Selling:** Several commercial services have approached students regarding selling class notes/study guides to their classmates. Selling the instructor's notes/study guides in this course is not permitted. Violations of this policy will be reported to the Dean of Students as academic misconduct (violation of course rules). Sanctions for academic misconduct may include a failing grade on the assignment for which the notes/study guides are being sold, a reduction in your final course grade, or a failing grade in the course, among other possibilities. Additionally, you should know that selling a faculty member's notes/study guides individually or on behalf of one of these services using IU email, or via Canvas may also constitute a violation of IU information technology and IU intellectual property policies; additional consequences may result.

**Online Course Materials:** The faculty member teaching this course holds the exclusive right to distribute, modify, post, and reproduce course materials, including all written materials, study guides, lectures, assignments, exercises, and exams. While you are permitted to take notes on the online materials and lectures posted for this course for your personal use, you are not permitted to re-post in another forum, distribute, or reproduce content from this course without the express written permission of the faculty member. Any violation of this course rule will be reported to the appropriate university offices and officials, including to the Dean of Students as academic misconduct.

14. **Canvas:** All readings and class announcements will be posted on the Canvas site. It is your responsibility to check Canvas on a regular basis to stay up to date with this course.
15. **Laptop/Tablets/Phones:** Use your devices in an appropriate, non-distractive manner.
16. **Inclement/Bad Weather Policy:** Class will only be cancelled if the university officially closes campus. Normally the university does not cancel classes due to bad weather. On those rare occasions when conditions indicate that a delay or a cancellation is necessary, an official announcement will be broadcast on local television stations. It is your responsibility to find out the status of campus closings before class and it is ultimately your responsibility to make a decision about your personal safety for traveling to and from campus.
17. **Drop/Withdrawal for Term:** If you do not plan to take this course you must officially withdraw by Sunday, October 21. If you do not officially drop this course and do not attend and complete assignments all semester you will receive an F grade.
18. **Writing-style Requirements:** All formal written assignments requiring citations should follow APA (6<sup>th</sup> edition) guidelines for writing. On written assignments, points will be deducted for excessive grammatical errors so please seek help from the writing center if necessary. The

following link provides a quick overview of major formatting you need to be aware of:  
<http://owl.english.purdue.edu>

19. **Attendance:** You are expected to be in attendance at any and all classes. That said, I realize we are in the midst of a global pandemic. If you are absent, get the notes from a colleague and don't get behind. ***Friday labs cannot be made up, but alternatively, you can write a paper that focuses on the content you missed in order to get the points for the assignment (and some of the information).***
- a. **Paper Substitute:** Students are to develop a paper that explores the issue/topic of the day. Students must use a myriad of resources, including peer-reviewed articles and popular culture perspectives. Papers should be 2 pages in length. Paper formatting: 2 pages, Times New Roman font, size 12 font, single-spaced, 1" margins. The alternative assignment is due at the same time/day the normal lab report would be handed in.

### **Enforcement of Public Health Requirements**

#### **Masks and Physical Distancing Requirements**

In recognition of what all IU community members owe to each other all students, staff, and faculty signed an acknowledgement of their responsibility to follow public health measures as a condition returning to the campus this fall. Included in that commitment were requirements for wearing masks in all IU buildings and maintaining physical distancing in all IU buildings. Both are classroom requirements.

Both requirements are necessary for us to protect each other from transmission of COVID-19.

- Therefore, if a student is present in class without a mask, the instructor will ask the student to put a mask on immediately or leave the class.
  - If a student comes to class a second time without a mask, the student's final grade will be reduced by one letter (e.g., from an A to a B, for instance), and the instructor will report the student to the Office of Student Conduct of the Division of Student Affairs.
  - If a student refuses to put a mask on after being instructed to do so, the instructor may end the class immediately, and report the student to the Office of Student Conduct. The student will be summarily suspended from the university pursuant to IU's [Summary Suspension Policy](#)
- If Student Conduct receives three cumulative reports from any combination of instructors or staff members that a student is not complying with the requirements of masking and physical distancing, the student [will be summarily suspended](#) from the university for the semester.

#### **Summary Suspension Policy**

**"A student may be summarily suspended from the university and summarily excluded from university property and programs by the Provost or designee of a university campus. The Provost or designee may act summarily without following the hearing procedures established by this section if the officer is satisfied that the student's continued presence on**

the campus constitutes a serious threat of harm to the student or to any other person on the campus or to the property of the university or property of other persons on the university campus.”

The Provost has determined that refusal to comply with the public health requirements specified in the Student Commitment form, including the requirement of wearing a mask in all IU buildings, constitutes “a serious threat of harm to other persons” within the meaning of the summary suspension policy. In addition, the Provost has determined that a person who does not comply with these requirements, as evidenced by three credible violations of the policy reported to the campus from any source, constitutes “a serious threat of harm to other persons” within the meaning of the summary suspension policy.

**Student Rights:** Any student who believes another person in a class is threatening the safety of the class by not wearing a mask or observing physical distancing requirements may leave the class without consequence.

**Attendance:** The student commitment form requires that you take your temperature every morning and that you refrain from attending class if you have a temperature of 100.4 or other symptoms of illness. In order to ensure that you can do this, attendance will not be a factor in the final grade. Attendance may still be taken to comply with accreditation requirements.

**Assigned Seating:** In order to ensure we can contact you in the event you are exposed to COVID-19, you must remain in your assigned seat for the entire semester. Given we will have field labs, we will be doing these as individuals and not in small groups. If you have a question-see the instructor.

#### Grading Scale:

A+	97%	C+	77%
A	93%	C	73%
A-	90%	C-	70%
B+	87%	D+	67%
B	83%	D	63%
B-	80%	D-	60%
		F	59% & Below

### **Evaluation & Assessments:**

- Reading Discussion Q/A: 55 pts.
- Lab Reports: 80 pts. total
- Health and Safety Policy Briefs & Presentation: 30 pts. total
- Book Review: 50 pts.
- Final Project- 100 pts. total
- Final Exam- 100 pts. total

**1. Reading Discussion Questions/Answers: 11 labs (5 pts. each)**

Students will provide both discussion questions and responses to classmates' questions in the discussion forum of Canvas. These will coincide with the Wednesday's readings and are due by noon each Wednesday. This activity will be graded on a completion basis, however, poor responses will result in no credit being earned. The goal here is to get students to think critically about the readings, to bring up points of confusion or contention, and to respond to each other.

**2. Lab Reports: 8 labs (10 pts. each)**

Lab reports will be assigned for Friday class sessions, including with each field lab, set of presentations, guest panelists, etc. These will be given out on a weekly basis and due one-week following the experience. All are due on Canvas by 8 AM.

**3. Health & Safety Policy Brief & Presentations: 30 pts. (20 pts. for policy brief and 10 pts. for presentation)**

Students will work with a partner to investigate a health and safety issue related to sustainable agriculture and present the work in both a written report and a presentation. Formal parameters will be provided the first week of September. Project is due on 10/2.

**4. Book Review: (50 pts. total)- Due 11/11 by 8 AM.**

Students are to write a book review of *Freedom Farmers*, by Monica White. Book reviews should be around 1000 words (use word count in MS Word) and be a concise and comprehensive evaluation of the author's main contentions. Be sure to discuss the following:

- The authors main approach to the research used to inform the text.
- What are the strong points and shortcoming?
- Does the book offer new insights to the subject? How so? If not, what is missing?
- You should reference the text, but minimize quotations to one sentence.

Helpful Resources

- <https://writingcenter.unc.edu/tips-and-tools/book-reviews/>
- <https://www.foodsystemsjournal.org/index.php/fsj/article/view/577/559>

**5. Final Project (100 pts. total):** Students will work with the instructor to choose a policy topic related to sustainable agriculture for their further investigation and exploration. The assignment will be delivered through two primary mediums. First, the student will select a platform to detail and discuss their findings (podcast, webinar, policy style paper, etc.) and also develop a presentation on the issue to be shared with the class. Further details will be provided by 10/14

- Assignment formally distributed: 10/2
- Topic and medium description due: 10/14



- Outline of both platform and presentation due: 10/28
- Final assignment due via Canvas: 11/13 by 8 AM
- Presentations on 11/13 and 11/18

**6. Final Exam (100 pts. total)- Accumulative Exam- 11/20 online; 9-12**

## Course Schedule

Day	Date	Topic	Readings/Assignment	Meeting Location	Time	Assignment Due
1W	8/26	Intro to the class	Berry, 2002- Gift of Good Land Kremen and Miles, 2012	Online	4:55-6:10	
1F	8/28	Primer on Sust. Ag. & Tour of IU Campus Farm	Penniman Chs. 1-2	IUCF	9:00-11:00	Discussion Q/A Post
2W	9/2	Soils	Penniman Chs. 4-5 Kean and Buckler, soils Clark, SARE, Cover Crops	Online	4:55-6:10	Discussion Q/A Post
2F	9/4	Soils	Lab	IUCF	9:00-12:00	
3W	9/9	Planning & Planting	Penniman Chs. 6-7 <a href="https://www.highmowingseeds.com/blog/crop-rotation-for-diversified-vegetable-operations/">https://www.highmowingseeds.com/blog/crop-rotation-for-diversified-vegetable-operations/</a> Howell, 2012	Online	4:55-6:10	Discussion Q/A Post
3F	9/11	Planning & Planting	Lab	IUCF	9:00-12:00	Soils Lab Due
4W	9/16	Plants (Disease & Pests)	Colquhoun, nd Layton, Organic Insect Control	Online	4:55-6:10	Discussion Q/A Post
4F	9/18	Disease and Pest Lab	Lab	IUCF	9:00-12:00	Planning & Planting Lab Due
5W	9/23	Plant Care & Management	Bruce et al., 2018 HTHB	Online	4:55-6:10	Discussion Q/A Post
5F	9/25	Plant Care & Management	Lab- Service Learning	IUCF	9:00-12:00	Disease & Pest Lab Due
6W	9/30	Harvesting Health & Safety	Tripp & McReynolds, 2019	Online	4:55-6:10	Discussion Q/A Post
6F	10/2	Health & Safety Lab- Presentations	H&S Story Map Presentations	IUCF	9:00-12:00	Care & Management Lab Due Health & Safety Policy Presentations H&S Policy Brief Due
7W	10/7	Livestock	Penniman Ch. 9 Kuhnen et al. 2012	Online	4:55-6:10	Discussion Q/A Post

**Commented [FJR1]:** Measuring soil samples all around property. Mapping them, analyzing them (PH, structure, etc.)

**Commented [FJR2]:** Planting out new plot

**Commented [FJR3]:** Do research activity to identify and prescribe treatment for various plants, observational approach, tend new plot

**Commented [FJR4]:** Service learning with Erin

			Eisler et al. (2014) Organic Production of Poultry Organic Production of Pigs Organic Production of Sheep			
7F	10/9	Livestock Lab	Lab	IUCF	9:00-12:00	Health & Safety Lab Due
8W	10/14	Sales & Distribution (Direct to Consumer)	Penniman Ch. 2 Robinson and Farmer (2017)- Chs .2 and 3 Stewart (2006)- A day at the market	Online	4:55-6:10	Discussion Q/A Post
8F	10/16	Guest Panel	Guest Panelists	IUCF	9:00-11:00	Livestock Lab Due
9W	10/21	Sales & Distribution (Institutional Sales)	Wholesaling local foods Craven et al. 2016 Farmer et al.- WV Organics <a href="https://www.huffingtonpost.com/eve-turow/you-need-to-know-what-food-regulation-b-5596171.html">https://www.huffingtonpost.com/eve-turow/you-need-to-know-what-food-regulation-b-5596171.html</a>	Online	4:55-6:10	Discussion Q/A Post
9F	10/23	Guest Panel	Guest Panelists	IUCF	9:00-11:00	DTC Lab Due
10W	10/28	Food Security & Sovereignty	Farmer et al., 2019 Babb et al., 2019	Online	4:55-6:10	Discussion Q/A Post
10F	10/30	Food Security & Sovereignty	Guest Panelists on Food Security and Sovereignty	Online	9:00-11:00	Institutional Lab Due
11W	11/4	Race & Agriculture in the U.S.	Freedom Farmers Part 1 Penniman Chs. 14-15	Online	4:55-6:10	Discussion Q/A Post
11F	11/6	Office Hours	Office Hours for Project		9:00-11:00	
12W	11/11	Race & Agriculture in the U.S.	Freedom Farmers Part 2 Penniman Ch. 16		4:55-6:10	Book Review Due
12F	11/13	Final Project Presentations		Online	9:00-12:00	Final Project Presentation
13W	11/18	Final Project Presentations		Online	4:55-6:10	Final Project Presentation
13F	11/20	Final Exam		Online	Online	Final Exam

**Commented [FJR5]:** Design plan for incorporating into the farm

**Commented [FJR6]:** Bring a few animals in- cows, set up fence and water night before in center barnyard

**Commented [FJR7]:** Mike Record and Rachel Beyer

**Commented [FJR8]:** Erin Camran-Sweeney, Dave Fischer, Dave Tallent