

HRT/CSS 251: Organic Farming Principles and Practices

HRT/CSS 251: Organic Farming Principles and Practices Fall 2025 Syllabus
Department of Horticulture/College of Agriculture and Natural Resources

Contents

HRT/CSS 251: Organic Farming Principles and Practices	1
Part 1: Course Information	1
Instructor Information	1
Course Description	1
Textbook & Course Materials	2
Recommended Texts & Other Readings	2
Part 2: Instructional Objectives	2
Part 3: Schedule of Classes and Assignments	3
Part 4: Grading Policy	6
Graded Course Activities	6
Late Work Policy	7
Viewing Grades	7
Letter Grade Assignment (Grading Scale)	7

Part 1: Course Information

Credit Hours: 3

Meeting Days/Times: M/W 3:00 PM-4:20 PM

Meeting Location: Plant & Soil Science Bldg A166

Instructor Information

Instructor: Dr. Olivia M. Smith

Pronouns: she/her/hers

Office: Plant & Soil Science Bldg A440-C

Office Hours: W 2:00-2:45 PM

Appointments Outside Office Hours: email Dr. Smith at smitho17@msu.edu to make an appointment

E-mail: smitho17@msu.edu

Website: <https://d2l.msu.edu/>

Class zoom link:

<https://msu.zoom.us/j/95443648776>

Passcode: HRT251

Course Description

This course will cover the principles and history of organic farming, soil management, various organic farm enterprises, organic farms as ecological systems, farming for income, and organic food/marketing trends. The primary course goals are to give a broad overview of benefits and

challenges of organic farming, a basic understanding of practices used in organic agriculture, and a strong foundation to build upon if interested in a career in sustainable agriculture.

The course includes multiple modalities for learning including lecture, readings, group discussions, student-led presentations, other assignments, and field trips to local farms.

Textbook & Course Materials

- The Organic Farming Manual: A Comprehensive Guide to Starting and Running a Certified Organic Farm, Ann Larkin Hanson, Storey Publishing, ISBN: 9781603424790, Copyright 2010.
 - On Amazon as of 8/16/25: \$14.99 on Kindle, \$17.99 new paperback, \$9.46 used paperback.
 - Available as a free ebook in the MSU digital course reserves. You can read and download sections for free. The library also has a print copy in the Course Reserves.
- The Market Gardener: A Successful Grower's Handbook for Small-scale Organic Farming, Jean-Martin Fortier, New Society Publishers, ISBN: 9780865717657, Copyright 2014.
 - On Amazon as of 8/16/25: \$15.71 on Kindle or \$16.54 paperback.
 - Available on Audible.
 - Available as a free ebook in the MSU digital course reserves. You can read and download sections for free. The library also has a print copy in the Course Reserves.

Recommended Texts & Other Readings

- Additional required readings for some course periods will be posted on d2l.
 - The schedule will tell you when you have additional readings.

Part 2: Instructional Objectives

Through this course, students will develop a deeper understanding of:

- **Organic Agriculture** – Why and how do farmers certify as organic? What is allowed, restricted or banned in organic production? What are alternative certification options? How do organic, sustainable and small farms fare financially? How does organic farming impact the climate and the environment? What are the strengths and weaknesses of organic farming systems?
- **Soils** – What are the physical, chemical, and biological characteristics of soil? How can organic farmers build organic matter and ensure soil health? How can I maintain and improve soil health?
- **Enterprises** – How are vegetables, fruits, field crops, livestock and other farm enterprises managed on organic farms?

- **Farm Ecology** – How can organic farmers manage farm biodiversity and natural resources and reduce weeds, pests, and diseases?
- **Entrepreneurship** – How do organic, sustainable, and small farms fare financially? What opportunities, challenges, and barriers exist for beginning and established farmers?

You will meet the objectives listed above through a combination of the following activities in this course:

- 1) Reading the assigned materials prior to classes, as indicated on the “Schedule of Classes and Assignments” (*content from reading materials will appear on assessments*).
- 2) Attending and participating in lectures and field trips.
- 3) Completing the course assignments.
- 4) Studying for quizzes and exams and learning/improving from feedback on assessments.
- 5) Seeking additional help as needed during office hours.

Part 3: Schedule of Classes and Assignments

Week	Date	Topic	Assigned reading	Assignments, quizzes
1 UNIT 1: What is organic?	Aug 25 th	Syllabus What is organic?	Larkin Introduction: What “Organic” Means; Larkin Chapter 16 The Larger Context	Organic Resources Presentations Assigned
	Aug 27 th	Sustainability of Organic Farming Systems – Guest lecture Dr. John Reganold	Reganold & Wachter (2016) (will be provided as a PDF)	
2	Sep 1 st – no class			
	Sep 3 rd	History of Organic Agriculture	Larkin Chapter One: Back to the Roots	Quiz 1
3	Sep 8 th	Organic Certification	Larkin Chapter Fourteen: Organic Certification	Quiz 2
	Sep 10 th	Field trip to Swallowtail Farm		Organic Resources Presentation Due
4	Sep 15 th	Organic Resources Presentations		Quiz 3
Unit 2: Soils	Sep 17 th	Intro Soil Science I	Larkin Chapter Three: Soil pg. 59-72; Fortier Chapter 3	Michigan Farms Presentations Assigned

5	Sep 22 nd	Intro Soil Science II – Guest Lecture Stephen Stresow-Cortez	Larkin Chapter Three: Soil pg. 72-93; Fortier Chapter 6	Quiz 4
	Sep 24 th	Cover Crops – Guest Lecture Stephen Stresow-Cortez	Fortier Chapter 6	
6	Sep 29 th	Field Trip to Urbandale Farm		Michigan Farms Presentations Due
Unit 3: Farm Enterprises	Oct 1 st	Intro to Vegetable Production Start designing your own farm (in class activity)	Larkin Chapter 5: Plants 101 pg. 128-143; Larkin Chapter Six: Garden Crops pg. 156-164; Fortier Chapters 3 & 4	Quiz 5 Organic System Plan Project Assigned
7	Oct 6 th	Michigan Farms Presentations		Quiz 6 Organic Fact Sheets Assigned
	Oct 8 th	Organic Field Crops and Orchard Crops Organic Field Crops lecture by Dr. Brook Wilke	Larkin Chapter Seven: Field Crops; Larkin Chapter Eight: Orchard Crops	
8	Oct 13 th	Organic Livestock and Pasture Management – Guest Lecture Dan Belprez	Larkin Chapter Nine: Livestock 101	
	Oct 15 th	Midterm Exam		
9	Oct 20 th – no class			
	Oct 22 nd	Farm Tour – Two Sparrows Farm		
10	Oct 27 th	MSU Student Organic Farm Tour		
Unit 4: Farm Ecology	Oct 29 th	Organic Weed Management – Guest Lecture Dr. Daniel Brainard	Fortier Chapter 9; Mohler et al. (2021) Chapter 3: Cultural Weed Management (will be provided as a PDF)	Wild Farm Alliance Extra Credit Assigned
11	Nov 3 rd	MSU Student Organic Farm Service Based Learning		

	Nov 5 th	Season Extension	Larkin Chapter Six: Garden Crops pg. 164-177; Fortier Chapter 11	Quiz 7
12	Nov 10 th	Pest Management	Larkin Chapter 5: Plants 101 pg. 143-153; Fortier Chapter 10	Quiz 8
	Nov 12 th	Biodiversity and Ecosystem Services	Larkin Chapter Thirteen: Biodiversity; Gliessman et al. (2022) Chapter 18: Landscape Diversity; Optional: Millennium Assessment Report (latter two will be provided as PDFs)	
13	Nov 17 th	Farm Habitat and Landscape Context	Smith et al. (2020) <i>PNAS</i> (will be provided as PDF)	Quiz 9 Organic Fact Sheets Due; Educational Signage Extra Credit Opportunity Assigned
	Nov 19 th	Pollination and urban agriculture – Guest lecture Jen Roedel	Lin et al. (2015) <i>Basic and Applied Ecology</i> (optional; will be provided as a PDF)	
14 Unit 5: Entrepreneurship	Nov 24 th	Organic Marketing	Larkin Chapter Fifteen: Going to Market; Fortier Chapters 1 & 2	Quiz 10
	Nov 26 th	Enterprise Budgets Online asynchronous – guest lecture by Katie Brandt	Fortier Chapter 2	Final Project Presentations Due
15	Dec 1 st	Final Project Presentations		Quiz 11

				Wild Farm Alliance Extra Credit Due
	Dec 3 rd	Final Project Presentations 20-min in-class review		
16	Dec 8 th – Final exam week	Final Exam (3-5 PM Plant & Soil Science Bldg A166)		

*The schedule is subject to change

Part 4: Grading Policy

Quizzes, exams, and assignments will be assessed using rubrics and keys. Keys for exams and quizzes will be provided on d2l after grading is completed. If quizzes have fill-in-the-blank questions, you will get marked half off for spelling errors when words are still recognizable but will receive no credit for unrecognizable words. You will receive rubrics for assignments when you get the assignment in class.

Completion of any in-class discussion prompts or worksheets will count towards your participation points for the day. If you are late for class or leave early, you will lose half of your participation points for the day. If you are on your laptop or phone doing anything not pertaining to the class, you will entirely lose your participation points for the day. You cannot make up lecture participation points, but your two lowest scores will be dropped to offset unavoidable circumstances.

Except for documented emergencies or other serious situations, you cannot make up quizzes, exams, or field trips. Quizzes will normally be given at the start of the class and cannot be made up if you are late without an excuse accepted at the discretion of the instructor. The lowest lecture quiz score will be dropped to help offset any unexpected life circumstances.

There will also be extra credit opportunities throughout the course. Individuals will not be granted extra credit opportunities that are not available to all students.

Mistakes happen: if you find a grading mistake or error, please give the original and an explanation of the mistake in writing to Dr. Smith within 24 hours of receiving the graded assignment/quiz/exam. This can be done in person or by email.

Graded Course Activities

The table below describes the graded course activities including points and activity description. The first column includes the points possible, and the second column includes a description for each activity.

Item	Points	Percent grade
Lecture Attendance/Participation (1 point/day) [excludes exam days and field trips; drop 2 lowest point days]	20	10%
Field Trip Attendance/Participation (3 points each*5 field trips)	15	7.5%

Lecture Quizzes (5 points each x 11 quizzes, but drop lowest for a total of 50 possible points)	50	25%
Lecture Exam I	25	12.5%
Final Exam (cumulative)	50	25%
Assignment 1: Organic Resources Presentations	5	2.5%
Assignment 2: Michigan Farms Presentations	5	2.5%
Assignment 3: Organic Fact Sheet	5	2.5%
Final Project Presentations (Organic Systems Plan)	25	12.5%
Total Points	200	
Extra Credit: Educational Signage Project	5	
Extra Credit: Wild Farm Alliance Pest Control Services Certifications	5	

Late Work Policy

Late assignments will automatically lose 25% of the points available for that assignment and must be turned in within one day of the deadline to receive points. For example, an assignment that is worth 5 points would only be worth a maximum of 3.75 points if the assignment is turned in one day late. Assignments not completed by one day after the deadline will not be accepted, and you will receive no points. Deadlines are given above in the "Schedule of Classes and Assignments." Assignments must be turned in on d2l by the stated deadline, following the policy above.

Viewing Grades

I will do my best to grade quizzes, exams, and assignments as quickly as possible to help students learn and improve from feedback. We will go over quiz and exam questions that a lot of people missed in the class period after assessments are graded. Students will be informed of their grades on each assignment and assessment in d2l.

Letter Grade Assignment (Grading Scale)

Grade	Percentage
4.0	90% to 100%
3.5	85% to 89%
3.0	80% to 84%
2.5	75% to 79%
2.0	70% to 74%
1.5	65% to 69%
1.0	60% to 64%
0.0	< 60%