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# ALS 3153

## Agricultural Ecology

Spring 2019  
Instructor: **Dr. Jennifer Weeks**  
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Office Hours: very flexible, by appt.

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### Overview

This course introduces students to agricultural systems as ecosystems governed by the same ecological processes governing all natural systems. Students will learn about the ecological processes controlling soil-water-plant interactions as well as the capture and use of solar energy in the biosphere. Students will also examine biotic interactions in agricultural systems and a variety of farming practices in the context of sustainability. Weekly videos and readings will prepare you to complete weekly quizzes and four exams. Readings and web resources will class discussions. Recorded, narrated field excursions will provide students with a field perspective on special topics and additional information needed to complete two assignments. We will also work in groups and as a class to shed some light (perspectives and data) on current agriculturally related issues in Florida.

### Course Goals

By the end of the course, students should be to...

1. Generalize how general ecological principles apply to agricultural systems.
2. Describe how crops interact with biotic and abiotic factors in the environment.
3. Discuss practices of conventional agriculture that identify natural resources and present barriers to sustainability.
4. Assess agricultural practices and formulate alternative methods that promote sustainability. technology, and research initiatives that represent possibilities for long-term sustainability in agriculture.
5. Evaluate and discuss scientific resources reporting on research and technology in agriculture.

**Prerequisites:** None

**Required Text:** Gliessman, Stephen R. Agroecology: The Ecology of Sustainable Food Systems. Third Edition. Boca Raton, FL: CRC Press, 2015. ISBN 978-1-4398-9561-0

**Required Technology:** Access to a computer that can utilize Proctor U

**Course Website:** This course will be conducted entirely online through the Canvas learning management system. You are responsible to check Canvas often for announcements and updates.

### Grades and Evaluation

There are 1000 points awarded in this class. I hope to provide a variety of diverse opportunities for you to engage with and demonstrate mastery of the content.

Introduction in Discussion	15
Syllabus Quiz	15
Quizzes 13 @ 25 pts	300*
Discussions 3 @30 pts	90
Assignments 2 @ 40 pts	80
Exams 4 @ 100 pts	400
Spotlight FL Group Project	100

#### FINAL GRADING Scale (Points):

930 A	770-799 C+
900-929 A -	730-769 C
870-899 B+	700-729 C -
830-869 B	670-699 D+
800-829 B -	630-669 D
	620-609 D -
	0-590 E

\*Lowest quiz grade is dropped

<b>Date</b>	<b>Course Material</b>	<b>Actions By You</b>	<b>Due Date</b>
Week 1 Jan 7	Introduction Using Primary Literature	Introduce Yourself Quiz 01 (Syllabus Quiz) Spotlight FL Discussion: What do you know	Sun Jan 13 Sun Jan 13 Sun Jan 13
Week 2 Jan 14	Tenets of Modern Agriculture Ecosystem Organization Carbon and Energy	Quiz 02 Discussion 1-first post due	Sun Jan 20 Sun Jan 20
Week 3 Jan 21	Light and Temperature Nutrients	Quiz 03 Discussion 1-responses due	Sun Jan 27 Sun Jan 27
Week 4 Jan 28	Wind and Fire	Quiz 04 <b>Exam 1 Opens</b>	Sun Feb 3 <b>Sun Feb 3</b>
Week 5 Feb 4	Water in Agriculture ·Examining U.S. Ag with GIS ·Dryland Agriculture	<b>Exam 1 Closes</b> Quiz 05 Discussion 2–first post due	<b>Mon Feb 4</b> Sun Feb 10 Sun Feb 10
Week 6 Feb 11	Fertilizer ·Fertilizers in the Environment	Quiz 06 Discussion 2 responses due Spotlight FL: Discussing the science	Sun Feb 17 Sun Feb 17 Sun Feb 17
Week 7 Feb 18	1-Soils Decomposition 2-Soil Organisms	Quiz 07 VFT 1 Water Quality Assignment <b>Exam 2 Opens</b>	Sun Feb 24 Sun Feb 24 <b>Sun Feb 24</b>
Week 8 Feb 25	Biotic Interactions in agroecosystems: the processes	<b>Exam 2 Closes</b> Quiz 08	<b>Mon Feb 25</b> Sun Mar 3
Week 9 Mar 4	Spring Break		
Week 10 Mar 11	1-Biotic Interactions in agroecosystems: the players	Quiz 09	Sun Mar 17
Week 11 Mar 18	Biotic Interactions in agroecosystems: management	Quiz 10 Spotlight Group Paper	Sun Mar 24 Sun Mar 24
Week 12 Mar 25	Biotic Interactions in agroecosystems: case studies	Quiz 11 VFT 2- Insect collection <b>Exam 3 Opens</b>	Sun Mar 31 Sun Mar 31 <b>Sun Mar 31</b>
Week 13 Apr 1	Ranching/Animal Husbandry	<b>Exam 3 Closes</b> Quiz 12 Spotlight Peer Review	<b>Mon Apr 1</b> Sun Apr 7 Sun Apr 7
Week 14 Apr 8	Integrated Pest Management Host Plant Resistance ·Genetic Engineering	Quiz 13 Discussion 3–first post due Spotlight FL Review& Reflection	Sun Apr 14 Sun Apr 14 Sun Apr 14
Week 15 Apr 15	Looking Ahead-Whole System Agriculture and Research	Quiz 14 Discussion 3 ends <b>Exam 4 Opens</b>	Sun Apr 21 Sun Apr 21 <b>Sun Apr 21</b>
Week 16 Apr 22	No topics	<b>Exam 4 Closes</b>	<b>Wed Apr 23</b>

## First Week Details

The first week of class there are several small tasks to complete.

1. Complete an INTRODUCTION OF YOURSELF (15 pts.) on the Discussion board that includes your major, current standing, interest in the course topics, experience within agriculture...and a photo of yourself, pet, or favorite place.
2. You must complete an open-book SYLLABUS QUIZ (15 pts.) available in Canvas.
3. You must respond to Spotlight Florida Discussion (10 points).

## Assessment Details

There are 13 mandatory weekly QUIZZES worth 25 points each (300 points total because I drop the lowest grade) based on the content of the videos and readings listed for that week. The quizzes will be taken online via the Canvas course site. The questions will be multiple choice and short answer drawn from a large question bank. You can take each quiz three times and I will use the highest score. The quizzes should be taken individually, not in a group. The quizzes are open note (you may use your class notes). You must complete the quizzes by Sunday at midnight of that week. Therefore, it is important that you read and watch the materials listed for each week in a timely manner. There are no makeup opportunities for missed quizzes unless the absence is excused. However, I do understand life happens and I drop the lowest quiz grade.

There are 3 mandatory DISCUSSIONS (30 pts. ea.) over the course of the semester that will involve written discussion of select agricultural ecology topics via the Discussion tool in Canvas. The first week the Discussion is open, you must respond to the question I post. You will have a week to do so. Your post should be a thoughtful response and should involve outside reference material from the internet or primary literature (as indicated in the instructions for that week (properly cited in APA format). Your thorough post should end with a question or questions posed to your classmates that will move the discussion forward. The second week of discussion, you will make 3 responses to the posts of other classmates. These posts also must be substantial (not, "I agree" or "I disagree"), include outside reference material. There are no make-up opportunities for missed discussions unless the absence is excused.

There are 2 VIRTUAL FIELD TRIP ASSIGNMENTS (40 pts. ea.). These assignments are completed after watching the corresponding pre-recorded videos. They will require you to assess a nearby body of water and complete an insect photo safari. Specific instructions for each assignment will be provided in the corresponding assignment link and video.

The SPOTLIGHT FL GROUP PROJECT (100 pts.) is a combination of individual and group work that includes two discussion posts, a short paper on the nutrient issues and red tide the state is experiencing, a peer review, and a written reflection on the project. . I will have very explicit details in the announcements and assignment link.

Four, one-hour, non-cumulative, PROCTORED EXAMS (100 pts. ea.) are taken online in Canvas. They are closed book and will contain, multiple choice and short answer questions. Exams open on Sundays at 7 AM and close Mondays at midnight so that you have TWO DAYS in which to complete your exam (note: the last exam is open for 4 days).

**Please note that this course requires the use of Proctor U for all four exams!**

ProctorU is a live online proctoring service that allows you to take your exam from the comfort of your home. ProctorU is available 24/7, however you will need to schedule your proctoring session at least **72 hours in advance** to avoid additional scheduling fees.

Creating a ProctorU account is very simple. All you will need to do is visit [go.proctoru.com](http://go.proctoru.com).

ProctorU provides free technical support to ensure you have the best testing situation possible. That is

available at [www.proctoru.com/testitout](http://www.proctoru.com/testitout) . On this page you will also be able to test your equipment, learn about what to expect during your proctoring session, and ask any questions you may have about the proctoring process with a ProctorU representative.

In order to use ProctorU you will need to have a high-speed internet connection, a webcam (internal or external), a Windows or Apple Operating System, and a government-issued photo ID. ProctorU recommends that you visit [proctoru.com/testitout](http://proctoru.com/testitout) prior to your proctoring session to test your equipment. For additional technical services needed before your exam, you can click on the button that says “connect to a live person.”

### **Extra Credit**

You have one opportunity. Sometime in the first month of class, you need to either arrange to meet with me or call me. I like to touch base with every student in the class to get to know you a bit on a personal level--- find out where you are coming from, where you are headed with your degree and how we can work together to insure you have a positive experience during the course. This will earn you 10 extra points.

### **Absences and Make-Up Work**

Assignment deadlines are listed in the course outline above as well as on the calendar on the course website. It is your responsibility to make sure assignments are submitted through the assignment links in Canvas (NOT to my email account). I will accept virtual field trip assignments late, but there is a 10 percent deduction each day past a deadline. Quizzes, discussions, and exam deadlines will not be extended without a documented excuse.

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

### **Course Evaluation**

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

### **Student Complaints**

For an online course, students can report complaints to:<http://www.distance.ufl.edu/student-complaint-process>

### **Academic Honesty**

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams).

Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and

comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

### **Software Use**

All faculty, staff, and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

### **Services for Students with Disabilities**

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation  
0001 Reid Hall, 352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)

### **Campus Helping Resources**

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources.

The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students.

Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, [www.counseling.ufl.edu](http://www.counseling.ufl.edu)

Counseling Services Groups and Workshops Outreach and Consultation Self-Help Library Wellness Coaching

U Matter We Care, [www.umatter.ufl.edu/](http://www.umatter.ufl.edu/)

Career Connections Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>