ALS 3133 Agriculture & Environmental Quality

Online Format, 3-Credits

Course Details	• For Majors & Non-Majors • No prerequisites, no textbook • Canvas course website accessible through http://elearning.ufl.edu/ • Exams proctored through Honorlock • All times reflect Eastern Standard Time Zones (EST)
Course Description	
	Analysis of the effects of agriculture on environmental quality with emphasis on agricultural wastes and practices, the potential for using agricultural systems for disposal of other wastes and the effects of pollution on the agricultural environment. *General Education-Physical Science*
Class Meetings & Format	**Online Format** • Asynchronous • Lectures, activities & required readings in Canvas	**Chat Sessions** • Live, Wed @ 5:30 pm EST • Zoom link in Canvas • Recommended, not required
Course Instructor	**Heather Enloe, PhD** heather.enloe@ufl.edu 325-294-3139 **Office Hours:** Wednesday chat sessions or by appointment	Teaching Assistants (none)

Student Learning Objectives:

- Predict the movement of nutrients and pesticides based on soil characteristics
- Sketch the nitrogen and phosphorus cycles and identify transformations in each
- Describe the components of a basic nutrient management plan
- Select best management practices suitable for Florida agriculture
- Assess the environmental benefits and problems associated with biofuels
- Compare aerobic and anaerobic composting techniques
- Critique the use of biosolids and reclaimed water in agricultural and residential settings
- Discuss current issues with the production and disposal of animal wastes and food wastes

Course Description and Statement of General Education Purpose

This course is intended for all majors. Students within Ag and Life Sciences majors will obtain significant value from the topics covered and will be provided with information on relevant 4000 level courses (i.e., the next step), graduate courses, and certifications.

This course is offered through the Soil, Water, & Ecosystem Sciences department. As such, this course emphasizes the role of soil and nutrient cycling in best management practices and sustainable management of agricultural lands. Assignments, quizzes, and lecture topics will provide a basis for critical evaluation of historical and current agricultural issues. Students will gain an understanding of the importance of well managed agriculture and provide a foundation upon which they can formulate and articulate views relative to the role of soil in best management practices.

Agricultural scientists can minimize agricultural pollution while sustaining adequate food production. Furthermore, agricultural lands are called upon to receive wastes produced by modern society. This course introduces students to the science behind agriculture. Course topics begin with a primer on (i) soil formation and (ii) nutrient cycling, both of which are necessary for all ecosystems to function. As the course progresses, students will learn about complex topics such as:
- nonpoint source pollution & eutrophication;
- best management practices for water, nutrient and pests;
- constructed wetlands & agriculture;
- the wastewater treatment process and the use of biosolids and reclaimed water in agriculture land; and
- bioenergy.

Student and Instructor Expectations

I am committed to (1) providing a welcoming atmosphere; (2) teaching you something new and unexpected within the course topics; and (3) introducing you to relevant 4000 level courses and/or potential internships. I am available on Wednesday 5:30 pm EST by zoom.

For this course to run smoothly, I expect students to:

A. **Have** a computer, video camera, and stable internet connection (see the section below on "Online Submissions").
B. **Review** biology and chemistry terminology at the beginning of the semester. As this is a 3000-level course, you must have a high school level understanding of biology (species, communities, ecosystems) and chemistry (inorganic vs organic compounds, cations vs anions).
C. **Check Canvas** for announcements at least twice a week.
D. **Participate** in chat sessions if your work/family situation allows.
E. Answer all questions using **your own words.**
F. **Be responsible for keeping up with due dates.** Use Canvas to identify all due dates. All deadlines are set for 11:59 pm EST. Late work is not accepted.
    a. Extra time has been built into all deadlines and due dates.
    b. You can drop the lowest quiz, exam, assignment.
G. **Submit work early, if necessary.** If you work or have extracurricular commitments that impact your ability to meet a course deadline, you need to submit quizzes, assignments, and exams before the due date.
H. **Student-Instructor Communication Tool.** If you think a question has been graded unfairly or if you missed a quiz or assignment deadline, use the Student-Instructor Communication Tool in Canvas.
I. **Email & phone correspondence** are for (1) setting a meeting time for office hours, (2) DRC accommodations; (3) emergency situations; or (4) highly sensitive situations. Email & phone correspondence are not for: (1) asking for an extension on a deadline after the deadline has passed; (2) missed assignments, exams, quizzes; (3) regrading an assignment or quiz question.

Online Submissions: Students are responsible for verifying assignments are successfully uploaded/submitted into Canvas. The instructor cannot be responsible for internet connections or failures. Locating a hard-wired connection (UF or public library) greatly reduces the instance of technical issues. Contact the instructor early if you foresee difficulty with maintaining a hard-wired connection (e.g. military service or living abroad).

UF Computing Help Desk & Ticket Number: All technical issues require a UF Helpdesk Ticket Number. The UF Helpdesk is available 24 hours a day, 7 days a week. https://helpdesk.ufl.edu/ | 352-392-4357.

Course Assessments & Grading

- **Assignments** may involve finding information online, learning to use an online tool, or cover materials related to class lectures and assigned readings.
- **Quizzes.** Quizzes consist of 5-10 questions (matching, multiple choice/answer, and true/false) to help you prepare for Exams.
- **Exams** consist of short answers, matching, multiple choice/answer, and true/false questions. Study guides are provided within each module. Exams are taken through Honorlock.

Grading Policy:	Grading		Scale			
	Exams	55%	A	100 - 90.0 %	C	<80.0-70.0 %
	Quizzes	15%	B+	<90.0 - 87.0	D	<70.0-65.0 %
	Assignments	30%	B	<87.0 - 85.0%	E	<65 %
	Total	100%	B-	<85.0-80.0%		

Assignments: *5 assignments*	Grades are based on the **best 5 out of 6 assignments**. Assignments are open for a minimum of two weeks. Start on them as soon as they open in Canvas. Late assignments are not accepted.
Quizzes: *10 quizzes*	Grades are based on the **best 10 out of 13 quizzes**. Each module has a quiz to help you prepare for the exam. Quizzes are taken only once, and answers are released a few days before the exam. Late quizzes are not accepted.
Exams: *3 exams*	Grades are based on the best **3 out of 4 exams**. The last exam is an optional make-up exam to replace Exam 1, 2, or 3. There are three opportunities for bonus points during the semester. Late exams are not accepted.

o   For information on current UF policies for assigning grade points, see https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/
o   Requirements for class attendance, make-up exams, assignments and other work are consistent with UF policies: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/.

Due Dates & Late Policy

- ✓ Assignments, Quizzes, and Exams are due at 11:59 pm EST. Midnight (12:00 am) of the following day is considered late and the assignment, quiz, or exam is closed in Canvas.
- ✓ Plan to turn in assignments, quizzes, and exams before the due date.
- ✓ The following "Topic Schedule" is a guide; always refer to the due dates within Canvas.
- ✓ **The instructor reserves the right to adjust the deadlines, if necessary. Changes will be communicated in advance and via Canvas Announcements.**

Missed Assignments, Quizzes, and Exams

Late quizzes, assignments and exams are not accepted. Because of the extended availability of all assignments, quizzes, & exams, extra time has already been built into the course to accommodate busy schedules or unexpected life events. Furthermore, the lowest exam grade and assignment grade is dropped (see Grading Policy in the Table above). Your semester grade will not be unduly penalized for late work unless late submissions are a habitual occurrence.

Communication Flow Chart: I understand that life events can impact your ability to complete all graded work this semester. Use the Communication Flow Chart to see all of the ways to communicate with your instructor.

Does the question…

Involve a sick dependent, recent hospitalization, death in the family, or extreme weather event?

> Yes
- **Contact the instructor by email.**
- Consider submitting an **instructor notification form.**
- Contact your academic advisor to discuss UF services & UF medical drop procedure.

No

Involve a DRC Accommodation?

> Yes

No

Involve an absence due to a UF sponsored event?

> Yes

No

Involve a military or court-imposed obligation?

> Yes

- Respond to the **Canvas Survey "I have an accommodation or observance"** at the start of the semester.

No

Involve a religious holiday observance?

> Yes

No

Involve a "life event" (e.g., illness, sick pet, job interview, vacation, travel, wedding, broken car, broken computer, no internet)?

> Yes

No

- Submit your concern to the **"Student-Teacher Communication Tool" in Canvas.**
- Your concern will be read and considered when assigning the final grade at the end of the semester.

Involve missing or regrading an assignment, exam, or quiz?

> Yes

No

Questions regarding course content can be addressed during **chat** (Wed at 5:30 pm EST. If you cannot make chat, you can upload your question to the **"Questions for Chat" in Canvas** or **email the instructor** to set a time for a zoom meeting.

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 your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Refer to the Orange Book 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

Specifically, you are required to:
- Complete all work independently unless the instructor provides explicit permission for you to collaborate on course assignments, quizzes & exams;
- Know the definition of plagiarism (see the UF library's guide on plagiarism);
- Use your own words in all your work (e.g., never cut and paste information from another source into an assignment or quiz or exam); and
- Report any condition that facilitates academic misconduct to appropriate personnel.

Request an Instructor Notification

If you need support for consideration of an extenuating circumstance, including family emergencies or other matters of a very serious nature, please contact the UF Dean of Students, UMatter Care Team.

You can do this by submitting an instructor notification request: https://care.dso.ufl.edu/instructor-notifications/.

Topic Schedule – Deadlines and Due Dates

✓ Topics and dates may change. You will be notified through Canvas regarding any changes.

Module	Start	Topic	Assessment
M0	1/9	• Read syllabus and take quiz to open Module 1	• Syllabus Quiz
M1	1/9	• Introduction to global and Florida Ag • Environmental quality & the triple bottom line	• Quiz 1 • Assignment 1
M2	1/17	• Watersheds & water quality • Ag, non-point source pollution & eutrophication	• Quiz 2
M3	1/23	• Watershed approach to water quality • BMPs & TMDLs	• Quiz 3 • Assignment 2
M4	1/30	• Soil formation & soil type • Soil quality	• Quiz 4
M5	2/6	• Soil texture, water holding capacity, & CEC • Soil orders • Review for Exam 1	• Quiz 5
M6	2/13	• Soil organic matter properties & soil quality • Decomposition & composting	• Exam 1 (M1-5) • Quiz 6
M7	2/20	• Nitrogen cycle • Phosphorus cycle	• Quiz 7 • Assignment 3
M8	2/27	• Nutrient management • Irrigation management	• Quiz 8 • Assignment 4
M9	3/6	• Beneficial use of manure in Ag • Waste management & Ag • Review for Exam 2	• Quiz 9
M10	3/20	• Biosolids & reclaimed water in Ag • Challenges of land application of organic wastes	• Exam 2 (M6-9) • Quiz 10
M11	3/27	• Bioenergy and agriculture • Anaerobic digestion & fermentation	• Quiz 11
M12	4/3 4/10	• Pests & pesticides • Integrated pest management	• Quiz 12 • Assignment 5
M13	4/17 4/24	• Wetlands & Ag • BMPs for soil conservation • Review	• Quiz 13 • Assignment 6
M14	5/1	• Exam(s) & done!	• Exam 3 (M10-13) • Optional Make-Up Exam (M1-13)

Online Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

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.

Publishing class lectures

Students are allowed to record video or audio of class lectures. Students may not publish recorded lectures without the written consent of the instructor. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session. Publication without permission of the instructor is prohibited.

To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services.

Additional Resources

Health and Wellbeing

- **Services for Students with Disabilities:** Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click here to get started with the Disability Resource Center. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.
- **U Matter, We Care:** If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.
- **Counseling and Wellness Center:** Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis services as well as non-crisis services.
- **Student Health Care Center:** Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website.
- **University Police Department:** Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).
- **UF Health Shands Emergency Room / Trauma Center:** For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.
- **GatorWell Health Promotion Services:** For prevention services focused on optimal wellbeing and academic success, visit the GatorWell website or call 352-273-4450.

Academic Resources:

- **E-learning technical support:** Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu. Visit the helpdesk website.
- **Career Connections Center:** Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- **Library Support:** Various ways to receive assistance with the libraries or finding resources.
- **Teaching Center:** Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- **Writing Studio:** 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.
- **Student Complaints On-Campus:** Visit the Student Honor Code and Student Conduct Code webpage for more information. On-Line Students Complaints: View the Distance Learning Student Complaint Process.