INSTRUCTOR
Susan Curry
scurry@ufl.edu
2163 McCarty Hall A
352-294-3147

TEACHING ASSISTANT
TBD

Office Hours: MTW 10:45-11:45 am or by appt.

Class Meetings: MW 3rd period (9:35-10:25) in Turlington L005 or web based
Prerequisites: None
Course Website is through E-Learning via Canvas: http://elearning.ufl.edu/

ONLINE MEETINGS / CHATS (web sections): Wednesday evening 5:30-6:30 pm EST approximately every
other week beginning (1/8/20). The link to the zoom chat session is on the Home page of the canvas site or
https://ufl.zoom.us/j/806455609
Chat session attendance is not mandatory, but material covered will be on quizzes and exams. Please have your
microphone and camera working and turned on for each session.

OVERVIEW:
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. Topics covered include: Soil characterization and erosion/leaching, non-point source pollution, best
management practices, land application of biosolids and organic wastes, bioenergy, pesticides, and wetlands.

COURSE DESCRIPTION AND STATEMENT OF GENERAL EDUCATION PURPOSE:
Understanding agriculture’s role in the environment and in our lives is integral to the overall educational experience.
This course is intended for all majors to acquaint students to agricultural practices and their effect on environmental
quality, and to demonstrate how agricultural scientists are attempting to minimize agricultural pollution and sustain
food production adequate for the world’s population. This course should be of significant value to those students who
will be involved in the management of agricultural production and processing industries as well as to those with a
special interest in agricultural pollution control and plan further study in this area.

This course introduces students to the science behind agriculture emphasizing the chemical and biological significance
of soils and microorganisms. Agriculture has had a large impact on changing landscapes and water resources in both
quantity and quality. Course topics include point and nonpoint source pollution, the Clean Water Act, wetlands,
bioenergy, food waste and pesticides. Students will examine the nitrogen, phosphorus and carbon cycles, and
determine application rates for nutrient management. Agriculture is also being called upon to receive wastes
produced by modern society. The students will study the wastewater treatment process and the use of biosolids and
reclaimed water in agriculture. Students will scrutinize the benefits and the challenges that renewable energy
(biomass) poses for agriculture and our environment.

Written homework assignments and discussions 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 agricultural issues and the environmental
pressures which continue to increase.
OBJECTIVES:
1. Promote student knowledge of the role of agriculture in environmental processes both historically and as part of the solution to current environmental issues.
2. Provide students with a scientific basis for understanding the movement of water and nutrients through the environment and evaluating water availability and water quality issues.
3. Provide a fundamental understanding of best management practices and the role that they play in minimizing water, nutrient and pesticide usage.
4. Provide a basic understanding of major nutrient cycling and the role of organic matter and microorganisms in these cycles.

STUDENT LEARNING OBJECTIVES:
Predict the movement of nutrients and pesticides based on soil characteristics
Solve for nutrient application rates given specific cropping/source scenarios
Sketch the nitrogen and phosphorus cycles and identify transformations in each
Select best management practices suitable for Florida agriculture
Assess the environmental benefits and problems associated with biofuels
Describe the components of a basic nutrient management plan
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

BASIC COURSE REQUIREMENTS
1. Exams consist of short answer, definitions, multiple choice and true/false questions. Study guides and review sessions will be provided prior to each exam.
2. Homework will address current and historic topics in agriculture as it relates to the environment as well as basic assignments related to class lectures.
3. Discussion topics will be available for each module. Students are expected to contribute to the discussions on a regular basis.

TEXTBOOK: No Textbook: Readings are provided through E-Learning to address topical issues of agriculture.

GRADING:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Exams</td>
<td>40%</td>
</tr>
<tr>
<td>Discussions</td>
<td>10%</td>
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<tr>
<td>Course participation/Lecture questions</td>
<td>5%</td>
</tr>
<tr>
<td>Homework/Assignments</td>
<td>35%</td>
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<tr>
<td>Quizzes</td>
<td>10%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
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The following grading scale will be used:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>100-91.0%</td>
</tr>
<tr>
<td>A-</td>
<td>90.99-90.0</td>
</tr>
<tr>
<td>B+</td>
<td>89.99-87.0</td>
</tr>
<tr>
<td>B</td>
<td>86.99-82.0</td>
</tr>
<tr>
<td>B-</td>
<td>81.99-80.0</td>
</tr>
<tr>
<td>C+</td>
<td>79.99-77.0</td>
</tr>
<tr>
<td>C</td>
<td>76.99-72.0</td>
</tr>
<tr>
<td>C-</td>
<td>71.99-70.0</td>
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<tr>
<td>D+</td>
<td>69.99-67.0</td>
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<tr>
<td>D</td>
<td>66.99-62.0</td>
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<tr>
<td>D-</td>
<td>61.99-60.0</td>
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<tr>
<td>E</td>
<td>&lt;60</td>
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QUIZZES/EXAMS

**EXAMS:** Grades will be based on your best 3 of 4 exam grades. If you miss an exam, that exam will be considered your drop. No makeup exams will be given without prior consent (including athletic and sanctioned events). Exam 4 is optional for all students who have not missed a previous exam.

**QUIZZES:** Quizzes are set up to be a study aid. You can sit with friends and take the quizzes together and discuss quiz answers. You may take each quiz up to 10 times. Each time a new set of questions will be available. Quiz answers are available immediately after each attempt and then again before the test (good test review). Quizzes are due ON THEIR DUE DATE. NO LATE SUBMISSIONS OF QUIZZES ARE ACCEPTED for partial credit.
COURSE PARTICIPATION/DISCUSSIONS:

ON-Campus section - attendance is required to fulfill Course participation (5%). Lecture questions will be provided prior to the commencement of each lecture. These questions should be answered during the course of the lecture, therefore, attendance is required. Students may miss 5 lecture question assignments without penalty. A portion of this course for on campus students is in the “flipped” format (learning material is solely online). You will read/watch information online and come to class prepared to discuss. Evidence of preparation is a portion of your participation grade.

Web sections – A link to the lecture questions is provided above each lecture/set of lectures. These questions should be answered during the course of the lecture, therefore, lecture viewing is required in a timely manner. Students may miss 5 lecture question assignments without penalty. Chat sessions will be held 5:30-6:30 pm EST on Wednesday nights approximately every other week during the semester beginning January 8th.

Discussion topics will be provided in each module. ALL students are required to submit a response to these questions as well as respond to at least 2 other student responses within 2 days of due date. For example: Your response to the discussion prompt is REQUIRED by the DUE DATE on the assignment. You will then have 2 additional days to read other student posts and respond to them. Two complete responses are required for full points, 3 additional thoughtful responses (total of 5 responses to other students) will result in additional credit. First responses – At LEAST 2 full paragraphs; follow-up responses to other students – at least 1 full paragraph

HOMEWORK/ASSIGNMENTS

Homework submissions: Submission of assignments is expected on time. Homework assignments are due in class or submitted through the Canvas site. Late work (including discussions) will lose 20% of total points each day and will NOT be accepted after 2 calendar days.

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.

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.
<table>
<thead>
<tr>
<th>COURSE MATERIAL</th>
<th>ACTION</th>
<th>DUE DATE</th>
<th>TIME</th>
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<tbody>
<tr>
<td>INTRODUCTORY Syllabus Quiz</td>
<td>Begin</td>
<td>Monday, January 6, 2020</td>
<td>9:00 A.M.</td>
</tr>
<tr>
<td>Syllabus FAQ Quiz (in Canvas)</td>
<td>Due</td>
<td>Monday, January 13, 2020</td>
<td>11:59 PM</td>
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**Module 1 - Agriculture and the Soils of Florida**

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<thead>
<tr>
<th>ACTION</th>
<th>DUE DATE</th>
<th>TIME</th>
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<tbody>
<tr>
<td>View Module 1 Lectures: Course Overview and Soils Review</td>
<td>Due</td>
<td>Monday, January 13, 2020</td>
</tr>
<tr>
<td>Discussion #1 - Your Response</td>
<td>Due</td>
<td>Monday, January 13, 2020</td>
</tr>
<tr>
<td>Discussion #1 - Respond to at least 2 other students</td>
<td>Due</td>
<td>Thursday, January 16, 2020</td>
</tr>
<tr>
<td>Module 1 Assignment</td>
<td>Due</td>
<td>Thursday, January 16, 2020</td>
</tr>
<tr>
<td>Complete Quiz 1</td>
<td>Due</td>
<td>Thursday, January 16, 2020</td>
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**Module 2 - Nonpoint Source Pollution and BMPs**

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<th>ACTION</th>
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<tbody>
<tr>
<td>View Module 2 Lectures: Nonpoint Source Pollution &amp; Best Management Practices</td>
<td>Due</td>
<td>Tuesday, January 21, 2020</td>
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<tr>
<td>Discussion #2 - Your Response</td>
<td>Due</td>
<td>Tuesday, January 21, 2020</td>
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<tr>
<td>Discussion #2 - Respond to at least 2 other students</td>
<td>Due</td>
<td>Thursday, January 23, 2020</td>
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<td>Module 2 Assignment</td>
<td>Due</td>
<td>Thursday, January 30, 2020</td>
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<tr>
<td>Complete Quiz 2</td>
<td>Due</td>
<td>Thursday, January 30, 2020</td>
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**Test 1 - 2/5/2020**

**Module 3 - Nutrient Management - N, P, & C Cycles**

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<tr>
<td>Discussion #3 - Your Response</td>
<td>Due</td>
<td>Monday, February 10, 2020</td>
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<tr>
<td>Discussion #3 - Respond to at least 2 other students</td>
<td>Due</td>
<td>Wednesday, February 12, 2020</td>
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<tr>
<td>Module 3 Assignment: Nitrogen and Phosphorus Cycles</td>
<td>Due</td>
<td>Thursday, February 20, 2020</td>
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<tr>
<td>Complete Quiz 3</td>
<td>Due</td>
<td>Thursday, February 20, 2020</td>
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**Module 4 - Organic Wastes, Composting & Land App.**

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<tr>
<th>ACTION</th>
<th>DUE DATE</th>
<th>TIME</th>
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<tbody>
<tr>
<td>View Module 4 Lectures: Organic Wastes, Composting, Biosolids and Land Application</td>
<td>Due</td>
<td>Monday, February 24, 2020</td>
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<tr>
<td>Discussion #4 - Your Response</td>
<td>Due</td>
<td>Monday, February 24, 2020</td>
</tr>
<tr>
<td>Discussion #4 - Respond to at least 2 other students</td>
<td>Due</td>
<td>Wednesday, February 26, 2020</td>
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<tr>
<td>Module 4 Assignment:</td>
<td>Due</td>
<td>Thursday, March 12, 2020</td>
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<tr>
<td>Complete Quiz 4</td>
<td>Due</td>
<td>Thursday, March 12, 2020</td>
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**Test 2 - 3/18/2020**
## Module 5 - Agriculture and Water

**Begin**
Friday, March 13, 2020  
9:00 A.M.

**View Module 5 Lectures:**
Reclaimed Water and Wetlands

**Discussion #5 - Your Response**  
Due Monday, March 23, 2020  
11:59 PM

**Discussion #5 - Respond to at least 2 other students**  
Due Wednesday, March 25, 2020  
11:59 PM

**Assignment 5: Constructed Wetland Assignment**  
Due Thursday, March 19, 2020  
11:59 PM

**Complete Quiz 5**  
Due Thursday, March 19, 2020  
11:59 PM

## Module 6 - Food Processing and Bioenergy

**Begin**
Friday, March 20, 2020  
9:00 A.M.

**View Module 6 Lectures:**
Food Processing, Bioenergy

**Discussion #6 - Your Response**  
Due Monday, March 30, 2020  
11:59 PM

**Discussion #6 - Respond to at least 2 other students**  
Due Wednesday, April 1, 2020  
11:59 PM

**Assignment 6: Land Application/Bioenergy**  
Due Thursday, April 9, 2020  
11:59 PM

**Complete Quiz 6**  
Due Thursday, April 9, 2020  
11:59 PM

## Module 7 - Integrated Pest Management

**Begin**
Friday, April 10, 2020  
9:00 A.M.

**View Module 7 Lectures:** Integrated Pest Management

**Discussion #7 - Your Response**  
Due Monday, April 6, 2020  
11:59 PM

**Discussion #7 - Respond to at least 2 other students**  
Due Wednesday, April 8, 2020  
11:59 PM

**Assignment 7: Pesticide Application Worksheet**  
Due Thursday, April 16, 2020  
11:59 PM

**Complete Quiz 7**  
Due Thursday, April 16, 2020  
11:59 PM

### Test 3 - 4/20/2020

**Test 4 (optional) – 4/28/20 (On-campus: 7:30 AM-9:30 AM)**  
Web: Due by 11:59 PM

### Online Course Evaluation Process:

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 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/](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/](https://ufl.bluera.com/ufl/). Summaries of course evaluation results are available to students at [https://gatorevals.aa.ufl.edu/public-results/](https://gatorevals.aa.ufl.edu/public-results/).

Each online distance learning program has a process for, and will make every attempt to resolve, student complaints within its academic and administrative departments at the program level. See [http://distance.ufl.edu/student-complaints](http://distance.ufl.edu/student-complaints) for more details.

### 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:
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/cwc/](http://www.counseling.ufl.edu/cwc/)

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

- *Career Resource Center, First Floor JWRU, 392-1601,* [www.crc.ufl.edu/](http://www.crc.ufl.edu/)