

AEC 4228/5227 (3 credits) Laboratory Practices in Agriculture Education

UF IFAS
UNIVERSITY of FLORIDA



Fall 2022 Sections 0182/2D67

Instructor

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Office Hours: Tuesdays 9 – 11 am via Zoom or in person Zoom link- (https://ufl.zoom.us/j/2659487212)

& By appointment (email to schedule)

Rigo Chaparro, M.S.
Graduate Teaching Assistant
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Office Hours:
By appointment

Time and Location

Wednesday: Periods 6 – 8 (12:50– 3:50 pm) Rolfs Hall 306 or designated time & location (see schedule)

Course Description

This course is designed to introduce pre-service agricultural education teachers to laboratory integration into the agricultural education curriculum at the middle school and secondary school level. Emphasis will be placed on developing knowledge of laboratory components in agriscience, laboratory design and set-up, laboratory utilization, facilitating student learning in the laboratory setting, appropriate teaching methods and techniques, curriculum applications, and classroom resources. Course content will be presented during the semester-long course & travel to off-campus sites will be required.

Course Essential Questions & Objectives

At the completion of the course, the learner will be able to:

Essential Question: What is the role of the laboratory in School-based Agricultural Education (SBAE)? Objective:

1. Assess the role of laboratory integration in agricultural education.

Essential Question: How do I design, manage, and evaluate agriscience activities? Objectives:

- 2. Properly design and manage student agriscience instruction.
- 3. Develop a system by which to evaluate agriscience laboratory activities and projects.

Essential Question: What safety concerns should I be aware of during laboratory instruction? Objective:

4. Develop and implement an agriscience laboratory safety instructional program.

Transportation

Students are expected to provide their own transportation to and from laboratory sites. If special circumstances exist, please contact the instructor. See schedule for any off-site program visits.

Required Texts

Any required readings will be made available on Canvas prior to the class session.

AEC Agricultural Education Program (TCH) Mission, Values, Learning Principles, and Transfer Goals

AEC Agricultural Education Program (TCH) Mission

The Agricultural Education Program at the University of Florida prepares students to be effective leaders of a school-based agriscience program within the community. Graduates demonstrate the requisite knowledge and skills in teaching and learning and in food, agriculture, and natural resources to contribute to the development of others. Graduates possess the desire for continuous personal and professional growth.

Values

The Agricultural Education Program values...

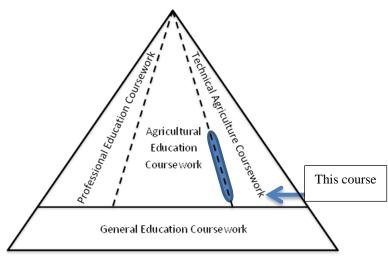
- Excellence in teaching.
- The complete school-based agriscience program classroom and laboratory instruction, leadership development, and extended learning.
- Instruction both in and about food, agriculture, and natural resources
- Teachers being essential to the success of the local school.
- Teacher involvement in the school, local, and professional communities.
- Passion for food, agriculture, and natural resources.
- Compassion for learners.
- Professionalism in the attitude and actions of all involved in agricultural education.
- Lifelong learning.
- The contributions that agricultural educators can make outside formal education.
- Food, agriculture, and natural resources contributions in addressing societal issues on a local to global scale.

Learning Principles

- 1. Learning is both social and individual.
- 2. Learning best occurs when moving from the concrete to the abstract.
- 3. Learning and performance are enhanced by continuous, explicit reflection and feedback.
- 4. Learning is affected by learner motivation, attitude and values.
- 5. Learning occurs at all levels of cognition and across all domains of learning.
- 6. Learning is purposeful, contextual, and non-linear.
- 7. Learning is organized around transferable core concepts that guide thinking and integrate new knowledge.
- 8. Learning is enhanced by addressing a student's abilities, prior knowledge, and experiences.
- 9. Learning occurs best in a supportive, challenging, and structured environment.
- 10. Learners reveal and demonstrate their understanding when they can apply, transfer, and adapt their learning to new and novel situations and problems.

Transfer Goals

- 1. Model characteristics of good teaching.
- 2. Differentiate instruction based on individual learner differences.
- 3. Demonstrate the use of the teacher–centered, social interaction, and student–centered learning activities.
- 4. Plan a holistic agricultural education program which integrates classroom, SAE, and FFA.
- 5. Demonstrate the characteristics and uses of selected educational technology.



University of Florida – Model for Teacher Education in Agricultural Education

DESCRIPTION OF COURSE ASSIGNMENTS

Attendance

Attendance is mandatory, and you are expected to be an **active participant** in the class discussions and exercises. You are required to let Mr. Chaparro know of any absences *prior* to the start of the class session. Failure to inform the instructor of an absence *prior* to the start of class (12:50 pm), or failure to notify of an absence at all, will result in a 5% total reduction in the **overall grade for the course.**

No work will be accepted past the deadline set by the syllabus unless noted by the instructor. No consideration of extending a due date will be considered on the day an assignment is due, students should contact the instructor or assistant if they are expecting to be unable to meet a deadline.

Laboratory Reflections

Following each laboratory site visit, you will be required to complete a half-page **reflection** using the provided prompts that is **due by 11:59pm the Tuesday following the lab experience**, submitted through Canvas. Reflections should account for the following: how information gathered during the laboratory site visit can be used within your classroom instruction/curriculum, SAE, and FFA. [Course Objectives: 1, 3]

Teaching Laboratory Facility Proposal and Design

You will create a complete proposal and design of facilities for a middle or high school agriscience program based on the guidelines in the rubric provided on Canvas. The overall project will be completed in stages with individual deadlines. Assignments will have feedback provided as they are turned in with the final products to consist of all the assignments assembled in portfolio format. Please see the rubrics for individual requirements, deadlines, and grading. [Course Objectives: 2-4]

Laboratory Lesson Plans and Presentation

Each student will select a predetermined laboratory topic and prepare lesson materials (lesson introduction, laboratory instruction, and evaluation). Using your developed lesson, each student will teach the laboratory instructional moment lasting approximately 20 minutes to your peers. This instructional moment should include time for students to complete your lab at least partially [Course Objectives: 2, 3]

Final Laboratory Practicum

All students will participate in a final, written practicum where you can demonstrate skills learned over the course of the semester. The practicum will be in place of a final exam. The location and requirements of the final practicum will be announced at the conclusion of the semester. [Course Objectives: 1-4]

Assignment	Points	Due Dates
Participation/Attendance	100	Weekly
Weekly Reflections (lowest score dropped)	100	Weekly
Facility Proposal - Individual Drafts	40	See Schedule
Facility Proposal - Final Submission	460	April 26 th
Laboratory Lesson Plans	100	February 15 th
Laboratory Teaching Presentation	150	See Schedule
Final Laboratory Practicum	50	April 19 th

Grading Scale

A = 970 - 1000	B = 830 - 879	D = 650 - 739
A - = 920 - 969	C+ = 780 - 829	E = below 650
B+ = 880 - 919	C = 740 - 779	

Note: This Web address references the UF grades and grading policies: https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

Use of technology during instruction

The use of personal cell phones, iPads, computers, and other electronic devices may be utilized during instruction. However, the use of these items should be limited to appropriate and designated times during the course. Misplaced usage will be noted by the instructor, ONE warning will be given, after which unauthorized use will be counted as an absence and will result in a 5% total reduction of the final course grade.

Academic Honesty

In 1995 the UF student body enacted a new honor code and voluntarily committed itself to the highest standards of honesty and integrity. When students enroll at the university, they commit themselves to the standard drafted and enacted by students.

In adopting this honor code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the university community. Students who enroll at the university commit to holding themselves and their peers to the high standard of honor required by the honor code. Any individual who becomes aware of a violation of the honor code is bound by honor to take corrective action. The quality of a University of Florida education is dependent upon community acceptance and enforcement of the honor code.

The Honor 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.

On all work submitted for credit by students at the university, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

The university requires all members of its community to be honest in all endeavors. A fundamental principle is that the whole process of learning and pursuit of knowledge is diminished by cheating, plagiarism, and other acts of academic dishonesty. In addition, every dishonest act in the academic environment affects other students adversely, from the skewing of the grading curve to giving unfair advantage for honors or for professional or graduate school admission. Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff and administrators who practice dishonest or demeaning behavior.

Students should report any condition that facilitates dishonesty to the instructor, department chair, college dean or Student Honor Court.

(Source: 2012-2013 Undergraduate Catalog)

It is assumed all work will be completed independently unless the assignment is defined as a group project, in writing by the instructor. This policy will be vigorously upheld at all times in this course.

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.

Campus Helping Resources

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <u>counseling.ufl.edu/cwc</u>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS) Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints

- Residential Course: https://www.dso.ufl.edu/documents/UF Complaints policy.pdfLinks to an external site.
- Online Course: http://www.distance.ufl.edu/student-complaint-processLinks to an external site.

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. 0001 Reid Hall, 392-8565, https://disability.ufl.edu/

U Matter, We Care

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Course Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Click here for guidance on how to give feedback in a professional and respectful manner. 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 ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students here.

Florida Educator Accomplished Practices (FEAPs)

In this course, one or more assignments have been selected at "Key Tasks" that will assess your mastery of knowledge, skill, and/or dispositions that the State of Florida requires of all entry-level educators. These assignments were specifically selected as Key Tasks because they align with the 6 Florida Educator Accomplished Practices (FEAPs).

Your mastery of each Indicator will be measured by your performance on a Key Task. To pass this course, you must successfully complete all Key Tasks and receive a rating of "Developing," "Accomplished," or "Exceptional." No exceptions will be made to this rule, even if you do not plan to practice in Florida after graduation or do not apply for state certification.

Students who receive an "Unsatisfactory" rating will be offered a chance to redo the Key Task or, in some cases, to complete a comparable task assigned by the instructor. Students who do not complete their makeup work satisfactorily will receive a failing grade at the instructor's discretion.

The rating guide framework below will be used to evaluate your performance on tasks assessing specific FEAP Indicators covered in this course. The language of each FEAP Indicator completes the statements. For more information, please visit the Educator Assessment System Student Portal at: https://my.education.ufl.edu/.

Exceptional	The candidate extensively integrates knowledge to be able to The candidate is prepared to apply this skill in a practical setting.	·
Accomplished	The candidate demonstrates knowledge of how to candidate is prepared to apply this skill in a practical setting.	The
Developing	The candidate is acquiring the necessary knowledge to candidate is not yet prepared to apply this skill in a practical setting.	The
Unsatisfactory	The candidate demonstrates little knowledge of how to	·

FEAPs Assessed in this course

- 1f Develops learning experiences that require students to demonstrate a variety of applicable skills and competencies
- 2a Organizes, allocates, and manages the resources of time, space, and attention
- 3e Relate & integrate the subject matter with other disciplines and life experiences

Tentative AEC 4228 Course Calendar

Class Meeting Date	Торіс	Location	Item(s) Due		
August 24	Purposes & Planning of Laboratory Instruction	Rolfs Hall 306			
August 31	Nature of Lab Instruction	Rolfs Hall 306	☐ 8/24 Reflection		
September 7	Facility Layout and Design with Laboratory Safety	Rolfs Hall 306	☐ 8/31 Reflection		
September 14	Agricultural Mechanics Laboratory Planning	Rolfs Hall 306	☐ 9/7 Reflection ☐ Emergency Plan DRAFT		
September 21	Entomology • UF Bee Lab	Bee Lab (1:00-3:00 pm)	☐ 9/14 Reflection ☐ Distribution of Materials DRAFT		
September 28	Aquaculture • UF Tropical Research Center	Virtual Lab- Asynchronous	☐ 9/21 Reflection ☐ Lesson Plan DRAFT		
Sept 30 – Oct 1	- Oct 1 Agriscience Teacher Education Symposium (Program Visits & LTC)				
October 5	Livestock Facilities & Animal Handling • Dr. Todd Thrift	UF Beef Science Unit 1-3 pm	☐ Grading Tool DRAFT ☐ Student Jobs DRAFT		
October 12	Virtual labs—How do you do them? • Dr. Natalie Ferand	Synchronous via Zoom 1:00 – 4:00 pm	☐ 10/5 Reflection ☐ Calendar DRAFT		
October 19	Teaching Presentations (6 Students)	Rolfs Hall 306	☐ 10/12 Reflection ☐ Tools and Equipment DRAFT		
October 26	Vet Assisting • Michelle Cesario	Virtual Lab- Asynchronous	☐ Narrative Explanation DRAFT		
November 2	Teaching Presentations (6 Students)	Rolfs Hall 306			
November 9	CTE Panel & Laws/Liability • Jessica Anderson, Danielle Carothers, & Kelli Kennedy	Rolfs Hall 306	☐ Facility drawings DRAFT		
November 16	School and Community Gardens • Kelli Brew	Farm to School Work Hub	☐ 11/9 Reflection		
November 23	Thanksgiving Break Holiday	No Class			
November 30	Program Visit Santa Fe High School	Santa Fe H.S.	☐ 11/16 Reflection		
December 7	Final Design Practicum • Reflective Practice	Online Quiz	Due by December 9 th : ☐ Final Facility Proposal		