Laboratory Practices in Agricultural Education

AEC 4228/5227

Fall 2024 – 3 credits
(Sections 5614/19J5)

UF IFAS UNIVERSITY of FLORIDA

AGRICULTURAL EDUCATION AND COMMUNICATION

Instructors

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Office Hours:
By appointment

Class 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 Objectives & Essential Questions

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.

Course Design

This course is designed as an in-person application-based approach. Students will be asked to design facility plans through a portfolio and deliver other educational programming in performance assessments throughout the semester to apply what they learned from the lecture/discussion format.

Requirements

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

Technology:

To succeed in this course, you must have access to the following technology:

- Desktop Computer or Laptop
  - Audio Capabilities
  - Webcam and Microphone for synchronous sessions
- Microsoft Word - Microsoft 365 basics video training
- Adobe Reader - Acrobat tutorials
- Zoom - Zoom Privacy Policy
- Internet Connection with access to Canvas
  - Canvas is the course management system at the University of Florida in which students will find course content, links to video lectures, assignments, quizzes, discussions, and grades. The use of this system will vary by instructor, but the following videos describe the most common tools in Canvas. The full student guide is provided if you have additional questions.
  - View Canvas Privacy Policy
- **Web Browser - Chrome** is the preferred browser for Canvas. If you do not have Chrome, you can download it.
- University of Florida Email
  - Students are expected to check their my.ufl emails daily. View the Student Computing Requirements page for information on technology requirements and expectations.

Prerequisite Knowledge:

Junior standing or higher

Minimum Technical Skills:

Minimum technical skills required:

- Proficiency in utilizing Canvas and navigating the internet effectively.
- Competence in using email for communication purposes, including sending and receiving messages and managing attachments.
- Familiarity with commonly used word processing applications (such as Microsoft Word or Google Docs), including the ability to create, edit, and format documents.
- Basic computer skills, including understanding fundamental operations like file management, using menus and toolbars, and navigating between different applications.
- Ability to perform online research using a variety of search engines and library databases.

Instructor Response & Feedback

The instructor is committed to responding to your Canvas and email messages **within 48 hours** when feasible during the work week, Monday through Friday, *except holidays*. You can also meet with me via Zoom by emailing for an appointment; links provided in the Contact section above. The major assignments will be graded, with *meaningful feedback* provided, **within one week of their submission.**

Assignment Explanation & Points:

Laboratory Reflections

Following each session, you will be required to complete a half-page **reflection** using the provided prompts that is **due before class the following week**, submitted through Canvas. No work will be accepted past the deadline nor will students absent be able to make up the reflection assignment.

Reflections should account for the following: how information gathered during the class session/laboratory visit can be used within your classroom instruction/curriculum, SAE, and FFA. [Course Objectives: 1, 3]

Field Observation Hours (Ag Ed Symposium)

Students are expected to attend program visit(s) to SBAE programs in Florida as part of the Agriscience Teacher Education Symposium. This event is tentatively planned for November 1st. Following the program visits/symposium event, a written reflection (1-2 pages) should be completed and submitted via Canvas using the prompts provided. [Course Objective: 1]

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 Presentations

Each student will select two predetermined laboratory topics and prepare lesson materials (lesson introduction, laboratory instruction, and evaluation). Using your developed lesson, each student will teach the laboratory instructional moments lasting approximately 20 minutes to your peers. These instructional moments 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
Weekly Reflections (11 @ 20 pts each/lowest score dropped)	200	Weekly
Field Observation Hours (Ag Ed Symposium)	50	November 15th
Facility Proposal - Individual Drafts	40	See Schedule
Facility Proposal - Final Submission	410	December 11th
Laboratory Lesson Plans (2 @ 50 pts each)	100	See Schedule
Laboratory Teaching Presentations (2 @ 75 pts each)	150	See Schedule
Final Laboratory Practicum	50	December 6th

<table>
<tr><th colspan="5">Grading Scale</th></tr>
<tr><td>A = 930 - 1000</td><td>B+ = 870 - 899</td><td>C+ = 770 - 799</td><td>D+ = 670 - 699</td><td>E = 0 - 599</td></tr>
<tr><td>A- = 900 - 929</td><td>B = 830 - 869</td><td>C = 730 - 769</td><td>D = 630 - 669</td><td></td></tr>
<tr><td></td><td>B- = 800 - 829</td><td>C- = 700 - 729</td><td>D- = 600 - 629</td><td></td></tr>
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Further information about UF grading policies can be found here:
https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

Reading & Assignment Schedule:

Class Meeting Date	Topic	Location	Item(s) Due
August 28	Purposes & Planning of Laboratory Instruction	Rolfs Hall 306	
September 4	Nature of Lab Instruction	Rolfs Hall 306	☐ 8/23 Reflection
September 11	Facility Layout and Design with Laboratory Safety	Rolfs Hall 306	☐ 8/30 Reflection
September 18	Agricultural Mechanics Laboratory Planning (can forgo if needed for Santa Fe visit)	Rolfs Hall 306	☐ 9/6 Reflection ☐ Emergency Plan DRAFT
September 25	Entomology • UF Bee Lab • Entomology & Nematology	Bee Lab (1:00-3:00 pm)	☐ 9/13 Reflection ☐ Grading Tool DRAFT ☐ Student Jobs DRAFT
October 2	Aquaculture or Santa Fe Program visit • Center for Aquatic and Invasive Plants	CAIP (1-3:30 pm)	☐ 9/20 Reflection ☐ Lesson Plan #1 DRAFT
October 9	Teaching Presentation #1	Rolfs Hall 306	☐ 9/27 Reflection ☐ Calendar DRAFT ☐ Field Observation Hours
October 16	CTE Panel & Laws/Liability • Jessica Anderson & Kelli Kennedy	Rolfs Hall 306	☐ Lesson Plan #2 DRAFT ☐ Tools and Equipment DRAFT ☐ Distribution of Materials DRAFT
October 23	Vet Assisting or Aquaculture • Discussion Board	Virtual Lab- Asynchronous	☐ 10/11 Reflection ☐ Facility drawings DRAFT
October 30	Teaching Presentations (6 Students)	Rolfs Hall 306	☐ 10/18 Reflection ☐ Narrative Explanation DRAFT

Class Meeting Date	Topic	Location	Item(s) Due
November 6	Livestock Facilities & Animal Handling • Dr. Todd Thrift • Or Santa Fe Visit	South Beef Unit	
November 13	Ag in the Classroom Resources • Jenn Morgenthal & Becky Sponholtz	Rolfs 306	☐ 11/1 Discussion Board
November 20	School and Community Gardens • Kelli Brew	Field and Fork Gardens	☐ 11/8 Reflection
November 27	Thanksgiving Break Holiday	No Class	☐ 11/15 Reflection
December 4	Final Design Practicum • Reflective Practice	Online Quiz	**Due by December 6th:** ☐ Final Facility Proposal

Academic Integrity

UF's Academic Honesty Statement:
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 dishonesty to the instructor, department chair, college dean or Student Honor Court. **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: UF Student Code of Conduct Webpage.

Plagiarism:
Plagiarism includes taking **verbatim phrases of *just a few words*** without permission or full attribution. It includes ***quoting too much*** from your sources, thereby substituting their expression for your own, or quoting too much from one source, effectively taking more than a *fair use* of their work. **Over quoting (direct quotes)** comprising more than 10% of any assignment will be considered plagiarism. Plagiarism includes ***unique expression***, which can be a phrase of a few words or a simple moniker. Our writing is mostly *our own expression*. When writing for science and business, we base our work on **facts** obtained from a variety of **credible sources.** We give credit where it is due. We **cite our sources** so others can access

the information we present. When appropriate, we very carefully, ethically, and lawfully use others' expression of that information. We obtain permission to use our sources' expression or give full credit for a *limited, fair use,* including direct quotes.

Attendance Policies

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

Institutional Policies

Recording Statement

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

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 guest 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. 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. UF IN-CLASS RECORDING

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. UF ACCEPTABLE USE POLICY

Course Evaluations

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. 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/

Student Services

Health & Wellness

- 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.
  - 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.
- 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).
- GatorWell Health Promotion Services
  - For prevention services focused on optimal wellbeing, including Wellness Coaching for 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.
- Career Connections Center
  - Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- Library Support
  - Various ways to receive assistance with respect to using 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.

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, UF Disability Resource Center.
Canvas Accessibility Standards
Zoom Accessibility Information

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 _____. The candidate is prepared to apply this skill in a practical setting.
Developing	The candidate is acquiring the necessary knowledge to _____. The candidate is not yet prepared to apply this skill in a practical setting.
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