



**AEC 4228**  
**Laboratory Practices in Agriculture**  
**Education**  
Fall 2022  
Section 3260



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**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 the agricultural sciences 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 agriculture.
- Teachers being essential to the success of the local school.
- Teacher involvement in the school, local, and professional communities.
- Passion for agriculture and compassion for learners.
- Professionalism in the attitude and actions of all involved in agricultural education.
- The contributions that agricultural educators can make outside of formal education.
- Agriculture's contribution 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.
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 preferred learning style, 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. Design an instructional program.
2. Create an environment conducive to learning.
3. Deliver effective instruction.
4. Assess student learning.
5. Participate in continuous professional development.
6. Act professionally and responsibly.

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**Instructor**

Dr. Debra Barry  
Assistant Professor  
Graduate Teaching Assistant  
101C PEPC  
[dmbarry@ufl.edu](mailto:dmbarry@ufl.edu)  
Office Hours:  
Wednesdays from 11:00am-1:00pm

Heather Nesbitt  
Graduate Support

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Office Hours:  
Tuesdays by appointment

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**Time and Location**

Wednesday: 12:50-3:50pm. Some meeting times may vary slightly, depending on the lab topic and location. Please refer to modules and be sure to regularly check your Canvas course announcements and UF email.

**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 SBAE?

Objective:

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

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

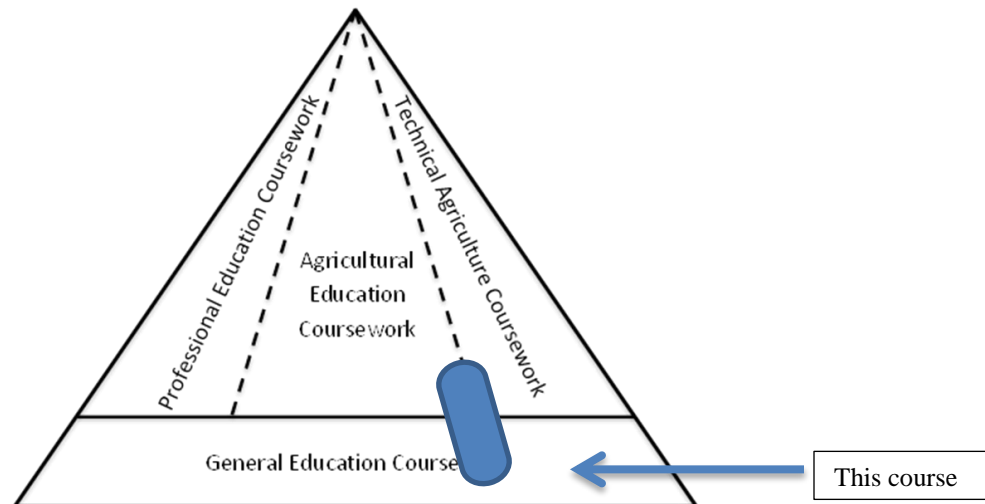
Objectives:

2. Properly design and manage student agriscience projects.
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.

### **Required Texts**

Any required readings will be handed out per class session.

## **DESCRIPTION OF COURSE ASSIGNMENTS**

### **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 draft deadlines. Assignments will have feedback provided as they are turned in with the final products to consist of all the assignments assembled in a portfolio format. Please see the rubrics for individual requirements, deadlines, and grading.

### **Laboratory Reflections**

Following each laboratory site visit, you will be required to complete a half-page **reflection** 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.

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 Friday September 30th-Saturday, October 1st, 2022. Following the program visits/symposium event, a written reflection (1-2 pages; double spaced; Times New Roman; 12 pt font; 1 inch margins) should be completed and submitted via Canvas. Please see Canvas for details.

### **Lab Lesson Presentations**

Students will develop lesson plans with laboratory components as part of their facility proposal submission. Students will develop a 25-30-minute lesson plan, which must include a hands-on laboratory component. Lessons should be designed, so that they can be implemented in the 4228 classroom with class peers acting as the students in the class. The lesson plan can be related to any agriscience topic that can be incorporated into your specific program that is being designed for their Teaching Facility Proposal and Design assignment. For a High School--Agritechnology standards should be followed, and can be accessed on the Canvas assignment description. For a Middle School program, you can follow any of the courses/standards listed on [Agriculture Food & Natural Resources \(fldoe.org\)](http://Agriculture Food & Natural Resources (fldoe.org)). Lesson plans should be aligned to a specific AFNR course and course standards, and should be created using the template on Canvas. The lesson should be uploaded two days before the lesson is presented in class.

### **Final Laboratory Practicum**

All students will participate in a final, written practicum at a new laboratory location where they 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.

<b>Assignment</b>	<b>Percentage</b>	<b>Due Dates</b>
Facility Proposal - Individual Drafts	12.5%	See Schedule
Facility Proposal - Final Submission	37.5%	Dec. 9 <sup>th</sup>
Lesson Plan Presentation #1, #2 & #3	10%	Sept. 21 <sup>st</sup> , Oct. 19 <sup>th</sup> & Nov.16 <sup>th</sup>
Attendance and Active Participation	10%	Weekly
Reflections (Weekly & Symposium)	20%	Weekly
Final Laboratory Practicum	10%	Dec. 7 <sup>th</sup>

## **Grading Scale**

A = 93-100%	B- = 80-82%	D+ = 66-69%
A- = 90-92%	C+ = 76-79%	D = 63-65%
B+ = 86-89%	C = 73-75%	D- = 60-62%
B = 83-85%	C- = 70-72%	E = below 60%

*Note:* This Web address references the UF grades and grading policies:  
<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>

## **Participation, Attendance and Assignments**

**Attendance** is mandatory, and you are expected to be an **active participant** in the class discussions and exercises. You are required to let Dr. Barry 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 (1:00pm or as noted in syllabus), or failure to notify of an absence at all, will result in a 5% total reduction in the **overall grade for the course for *each* absence**. If meeting virtually, on-time arrival and attendance are expected and noted, even in a virtual setting.

**No facility draft assignment will be accepted past the deadline set by the syllabus unless noted by the instructor.** There is a 2 days late policy in place at -10% per day for reflections, as well as the final submission for the facility proposal. 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.

## **Communication, Assignment Feedback and Grades**

The best way to reach your instructor is through email: [dmbarry@ufl.edu](mailto:dmbarry@ufl.edu). Responses will be given on weekdays within 48 hours. If you email on a weekend, you may not receive a response until Monday. Assignment feedback and grades will be given within 7-10 days, but most often within one week. Please don't hesitate to reach out if you have any course or assignment questions throughout the semester.

## **Participation, Attendance, and other assignments**

On-time arrival and attendance are expected and noted. Your participation in discussions that take place during synchronous sessions is vital. Please contribute to class discussions, and don't hesitate to ask questions! Please notify the instructor of any upcoming need to miss synchronous sessions, or extenuating circumstances. Assignments will be accepted past the deadline for two days, at a reduction of 10% each day it is late. For presentations during synchronous class time, unless prior arrangements have been made before the day of the presentation, they are required to be presented on the due date. Students should contact the instructor or assistant if they are expecting to be unable to meet a deadline. Any time instruction is missed, for any reason, it will count as an absence. College approved field trips, and competitive and leadership development events (with prior instructor approval) are considered legitimate and with proper documentation will not be considered an absence. In case of emergencies, arrangements for completing assignments should be made immediately upon return to campus.

Please see the UF Attendance Policy for more information: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

## **In Class Recording**

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 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 Policy on Course Syllabi 3 UF, Academic Affairs, July 28th, 2021 Honor Code and Student Conduct Code.

### **Use of technology during instruction & technology failure**

The use of personal cell phones, I-pads, computers, and other electronic devices may only be utilized for instructional purposes. Inappropriate use of these items distracts learning for all individuals and creates an unprofessional environment. Using such devices in an unapproved manner will negatively impact the participation portion of the course. If you experience technology fail during any type of zoom connection (when applicable), or when accessing course materials, please email Dr. Barry as soon as possible.

### **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.

### **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. 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/>."

### **Campus Helping Resources**

#### Health and Wellness

- *U Matter, We Care*: If you or someone you know is in distress, please contact [umatter@ufl.edu](mailto: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, 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](mailto: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

### **Canvas Technology Requirements**

Computers, Internet, and Web browsers: Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser. It is recommended to use a computer less than five years old with at least 1GB of RAM. It is recommended to have a minimum Internet speed of 512kbps. It is strongly recommended to not use a wireless connection, phone, tablet, or notepad for critical course tasks such as exams and discussions.

Canvas currently supports the following browsers: Chrome, Safari, Firefox, Edge. Canvas supports the last two versions of most browsers. It is highly recommend updating to the newest version of whatever browser you are using. Note that your computer's operating system may affect browser function. Failure to use one of these browsers will cause problems.

For more information on approved computers and browsers please visit:

<https://community.canvaslms.com/t5/Canvas-Basics-Guide/What-are-the-browser-and-computer-requirements-for-Canvas/ta-p/66> On this web page there is an area titled "Is My Browser up to Date?" Use it to check each computer and browser you may use in this course. There is another important area on "Browser Privacy Settings." Read the section(s) for any browser intended for use. For example, Note that: In browsers such as Safari, insecure content will never be displayed in the browser. Return to the page to check for updates on technology issues in Canvas.

If you encounter technical difficulties in this course, contact the UF Computing Help Desk right away to troubleshoot. <https://helpdesk.ufl.edu/> or (352) 392-HELP. If the problem cannot be fixed immediately, notify your instructor, and provide them with the Help Desk ticket number.



### **Accessibility:**

For more information on Accessibility for Canvas and Zoom, please go to:

<https://www.instructure.com/canvas/accessibility>,

<https://zoom.us/accessibility>

### **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, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)

### **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](mailto: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.

### **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

### **Tentative AEC 4228 Course Calendar**

<b>Class Meeting Date</b>	<b>Topic</b>	<b>Location</b>	<b>Item(s) Due That Week</b>
Aug. 24	Purposes of Lab Instruction *Cheese Lab	PEPC 102	
Aug. 31	Plant Science: Ralph Taylor Nursery • Janyel Taylor	3709 38th Ave E Bradenton, FL 34208 1pm	<input type="checkbox"/> 8/24 reflection
Sept. 7	Nature of Lab Instruction	PEPC 102	<input type="checkbox"/> 8/31 reflection <input type="checkbox"/> Facility drawings DRAFT
Sept. 14	Planning for Lab Instruction	PEPC 102	<input type="checkbox"/> 9/7 reflection <input type="checkbox"/> Emergency Plan DRAFT
Sept. 21	<b>Lab Lesson Presentations #1</b>	PEPC 102 <b>noon</b>	<input type="checkbox"/> 9/14 reflection
Sept. 28	Florida Ag In The Classroom *Jen Morgenthal	PEPC 102 1pm	<input type="checkbox"/> Tools and Equipment DRAFT
Sept. 30-Oct.1	6 <sup>th</sup> Annual Agriscience Teacher Education Symposium	Central Florida sites	
Oct. 5	Vet Assisting • Rebecca Stubbs	George Jenkins HS 1-4pm	<input type="checkbox"/> 9/28 Reflection <input type="checkbox"/> 9/30-10/1 symposium reflection (rubric differs from weekly reflection) <input type="checkbox"/> Grading Tool DRAFT
Oct. 12	Virtual labs & STEM in Ag • Dr. Natalie Ferand	Zoom (from home) 1pm	<input type="checkbox"/> 10/5 Reflection <input type="checkbox"/> Student Jobs DRAFT
Oct. 19	<b>Lab Lesson Presentations #2</b>	PEPC 102 <b>noon</b>	<input type="checkbox"/> 10/12 Reflection
Oct. 26	Aquaculture • Eric Cassiano	UF Tropical Research Center 1408 24th St SE Ruskin, FL 33570 2-4pm	<input type="checkbox"/> Distribution of Materials DRAFT
Nov. 2	Animal Science & Livestock Facilities • Susan Grainger	Parrish Community HS 7505 Fort Hamer Rd. Parrish, Fl. 34219 1-4pm	<input type="checkbox"/> 10/26 Reflection
Nov. 9	CTE Panel & Laws/Liability • Kelli Kennedy • Jessica Anderson • Danielle Dimon	PEPC 102 1pm	<input type="checkbox"/> 11/2 Reflection <input type="checkbox"/> Narrative Explanation DRAFT



Nov. 16	<b>Lab Lesson Presentation #3</b>	PEPC 102 <b>noon</b>	<input type="checkbox"/> 11/9 Reflection
Nov. 23	NO CLASSES: FALL HOLIDAY		
Nov. 30	Facility layout & Tractor Operations	PEPC 102 Gulf Coast Research & Education Center 14625 County Road 672, Wimauma, FL 33598 1:00pm	
Dec. 7	Final Design Practicum <ul style="list-style-type: none"> <li>• Julia Kimbrell</li> </ul>	Plant City High School 1 Raider Place Plant City, Fl. 33563 1:00pm	<input type="checkbox"/> 11/30 Reflection <input type="checkbox"/> Final Facility Project: <b>Due by Dec. 9th</b>