

Curriculum Development and Assessment Techniques in Emerging Agricultural Technologies



AEC 5544

Fall 2024- 3 Credit Hours



AGRICULTURAL
EDUCATION AND
COMMUNICATION

Instructor

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Teaching Assistant

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Class Times

Wednesday Periods 4 & 5

Location

Rolfs 306

Course Description

This course is designed to expose students to appropriate teaching techniques, curricula and resources. Emphasis will be placed on new and emerging areas in food, agriculture and the natural resource sciences.

Course Essential Questions & Objectives

- 1- How do effective teachers decide what to teach every day?
 - Develop a plan for a total agricultural education program.
 - Establish a sequence of classes that meet the program goals.
 - Articulate the purpose of an SBAE program with other professionals and stakeholders.
 - Develop a logical sequence of units for an SBAE course.
 - Find, unpack, and embed FDOE standards and benchmarks.
 - Develop a syllabus for an SBAE course.
 - Determine an appropriate unit structure for a course.
 - Write meaningful transfer goals, understandings, and essential questions.
 - Determine appropriate knowledge and skills for a unit of instruction.
 - Write transfer goals, understandings, and essential questions
 - Craft meaningful learning objectives at various levels of blooms taxonomy.
 - Develop daily lesson plans to guide instruction.
- 2- How can I tell if my students are meeting my learning goals?
 - Create meaningful rubrics to assess authentic learning experiences.

- Write an assessment that meets unit goals
 - Implement formative assessment strategies in instruction.
 - Complete the NQPS document to evaluate a program
- 3- How do I make sure all students are getting it?
- Use data to provide justification for instructional practices
 - Create a plan to differentiate instruction for students in an SBAE class.
- 4- How do I handle disruptions/problem behavior in my classroom?
- Develop a plan to manage student behavior in an SBAE course.
 - Demonstrate implementing an escalation plan to deal with student misbehavior.

Course Design

Course uses a hybrid, flipped design. Students should complete one hour of online work before class each week. The course meets for two hours.

Requirements

There are no required textbooks for this course. All resources are available on course eLearning site on Canvas

Reference Texts *(optional)*

Phipps, L. J., Osborne, E. W., Dyer, J. E., & Ball, A. L. (2008). *Handbook on Agricultural Education in Public Schools*. Clifton Park, NY: Thomson Delmar Learning (ISBN 978-1-4180-3993-6)

Technology:

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

- Desktop Computer or Laptop
 - Audio Capabilities
 - Webcam and Microphone
- 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:

{Insert any pre-req knowledge required for your course, as appropriate}

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 instructors are committed to responding to your Canvas and email messages **within 24 hours** when feasible during the work week, Monday through Friday, *except holidays*. We also hold office hours each week via Zoom; links provided in the canvas page. The major assignments will be graded, with *meaningful feedback* provided, **within one week of their submission**.

Assignments

{Here is where things begin to really differ content wise course to course. I would recommend using the heading 3 function to separate out each type of assignment. This helps separate out one content item from the next.}

Assignment Points & Explanation:

{Insert your assignments' explanation and the point value here- this is where you should use heading 3 option to separate out each assignment}

Course Grading:

{Insert grading information here}

Grading Scale

A = 1050-1100	B- = 900-929	D+ = 770-799
A- = 1000-1049	C+ = 870-899	D = 730-769
B+ = 970-999	C = 830-869	D- = 700-729
B = 930-969	C- = 800-829	E = below 700

Further information about UF grading policies can be found here:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Reading & Assignment Schedule:

DESCRIPTION OF ASSIGNMENTS/CORNERSTONE TASKS

(Note tasks which contribute to assessment of FEAPS)

Assignment	Transfer Goal	Objective	Points
Curriculum Map Part 1 (Total Program Plan)	1	3.1	100
Curriculum Map part 2 (Course Plan)	1, 2	3.2-3.4	150
Curriculum Map part 3 (Unit Plan Draft)	1, 4	2.1-2.2, 4.1-4.4, 5.1	30
Curriculum Map part 3 (Unit Plan)	1, 4	2.1-2.2, 4.1-4.4, 5.1	250
Weekly Assignments (23 points each)	6	All	345
Resource Share	3, 5, 6	All	25
Observation Hours	All	All	100
Research to Practice*	All	All	100

Weekly Assignments

Each weekly assignment is worth 23 points. The weekly assignment consist of completing pre-class work, attending class, and submitting an assignment. The pre-class work must be completed before each class begins. The assignment will vary each week. The assignments will be available in the canvas module for the course week. To earn the full points for the in-class work, you must come to class on time and prepared to work and fully participate in the class discussions/daily assignments/or other tasks that will take place in the class. Your weekly worksheet with all assignments should be turned in by 11:59 PM Sunday on the week following class.

Resource Share

The resource share assignment is designed to familiarize the class with various resources available to support teaching in the agriscience classroom. You must find and analyze a resource that is available to everyone in the course (ie. Cannot be a paid resource or require a membership). You will be allowed 10 minutes of class time to share the resource with the class and to explain the merits of the resource.

Curriculum Map Part 1 (Total Program Plan)

The program plan assignment is a written document that provides a clear justification and goals of the program to administrators, stakeholders, and students. The program plan should include a philosophical overview of the program, a logical sequence of courses, appropriate industry certifications, FFA activities, and SAE opportunities available for students in the program.

Curriculum Map Part 2 (Course Plan)

The course plan assignment will include a course syllabus and break down of the units to be taught in the course. The course plan should provide a detailed description for the major concepts taught in the course.

Curriculum Map Part 3 (Unit Plan)

The unit plan assignment is a detailed plan for an entire unit of instruction that lasts at least 15 class days. The components of the unit plan are: a daily lesson plan for every day of instruction, all the materials associated with the lessons (ie powerpoints, handouts etc.), written assessments, and formative assessments. A rubric and assignment sheet is provided.

Research to Practice

The research to practice assignment is designed for graduate students. Students should find a scholarly research article related to the course objectives, provide a synthesis of the article, and describe the specific practical implications the recommendations hold for their classroom instruction. To earn full points on the assignment, they should prepare a one-page document to be shared with the class.

Late Assignment Policy

Assignments submitted after the due date will be awarded 1/2 points. Assignments will not be accepted three weeks after the initial due date unless other arrangements have been made, prior to the due date, with Dr. Easterly.

Students who are absent from class for any reason will assume complete responsibility for obtaining information missed during their absence. There are no opportunities to make-up work outside of the following: Prior arrangement and approval of the instructor, university/college approved field trips, competitive and leadership development events (with prior instructor approval). In case of emergencies, arrangements for completing make-up exams or assignments should be made immediately upon return to class and proper documentation should be presented during the first meeting with the instructor.

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.

Students are encouraged to use reputable resources. Just like teachers can find and share resources, you are encouraged to use resources for your lesson planning assignments. The expectation for lesson plans is that you create the lesson planning document and use resources for teaching materials. You are strongly encouraged to adapt the resources for your use. Submitting premade lesson plans, lesson plans prepared by another teacher, or by a lesson planning tool (AI) without major edits is considered plagiarism.

AI Statement- Artificial Intelligence and generative tools (eg. Breezy TA, Chat GPT) are useful tools to create educational resources. You may use these tools to create instructional materials and lesson plans. You should acknowledge what tools you used to create materials and adapt them for your use. Certain assignments in this course will limit or prohibit the use of AI.

Attendance Policies

Students who are absent from class for any reason will assume complete responsibility for obtaining information missed during their absence. There are no opportunities to make-up work outside of the following: Prior arrangement and approval of the instructor, university/college approved field trips, competitive and leadership development events (with prior instructor approval). In case of emergencies, arrangements for completing make-up exams or assignments should be made immediately upon return to class and proper documentation should be presented during the first meeting with the instructor.

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

- 1e. Uses diagnostic student data to plan lessons.
- 2h. Adapts the learning environment to accommodate the differing needs and diversity of students.
- 3c. Identify gaps in students’ subject matter knowledge.
- 3h. Differentiate instruction based on an assessment of student learning needs and recognition of individual differences in students.
- 4a. Analyzes and applies data from multiple assessments & measures to diagnose students’ learning needs, informs instruction based on those needs, and drives the learning process.
- 4b. Designs & aligns formative & summative assessments that match learning objectives and lead to mastery.
- 4e. Shares the importance and outcomes of student assessment data with the student and the student’s parent / caregiver(s).
- 4f. Applies technology to organize and integrate assessment information.
- 5c. Uses a variety of data independently & in collaboration w/ colleagues, to evaluate learning outcomes adjust planning & continuously improve effectiveness of the lessons.

AEC 4202 Course Calendar

Dates	Topics / Learning Experiences	Due
Unit 1- Total Program Plan		
Aug 28	First Day of Class- Setting the Stage for the Last Day of Class	
Sep 4	Course Sequencing	
Unit 2- Course Plan		
Sep 11	Standards and Benchmarks	
Sep 18	Grading Systems, Units, & Syllabus	Curriculum Map Part 1 (Total Program Plan)
Unit 3- Unit Plan		
Sep 25	Backwards Design	
Oct 2	Performance Assessment	
Oct 9	Industry Certifications (LINC Conference)	
Oct 16	Formative Assessment	Curriculum Map Part 2 (Course Plan)
Oct 23	Written Assessment	
Oct 30	Learning Experiences	
Unit 4- Lesson Plan		
Nov 6	Objectives	
Nov 13	Learning Experiences	Curriculum Map Part 3 (Unit Plan Draft)
Nov 20	Preflection & Reflection	
Dec 4	Final Presentations	
Dec 11 12:00 PM	No class – Turn in final project	Curriculum Map Part 3 (Unit Plan)