**Curriculum Development and Assessment Techniques in Emerging Agricultural Technologies**

AEC 4202

Fall 2025- 3 Credit Hours

# Instructor

R. G. (Tre) Easterly III, PhD

Associate Professor

307C Rolfs Hall

352-273-4052

tre.easterly@ufl.edu

Office Hours- Thurs 1:00-3:00 or by Appt.

# Teaching Assistant

Jessica Switzer

Email: jlswitzer@ufl.edu

Office hours:

# Class Times Location

Wednesday Periods 4 & 5 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.

1. 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.

1. 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.

1. 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](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsupport.microsoft.com%2Fen-us%2Foffice%2Fmicrosoft-365-basics-video-training-396b8d9e-e118-42d0-8a0d-87d1f2f055fb&data=05%7C01%7Cbrooke.brammer%40ufl.edu%7Cfa687a99f8814d9457ff08db03a74f10%7C0d4da0f84a314d76ace60a62331e1b84%7C0%7C0%7C638107789339169026%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=TLW6NUAxqahJlebtSJzmI6gGZFi5bvKksQmj7nOsgPA%3D&reserved=0)
* Adobe Reader - [Acrobat tutorials](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fhelpx.adobe.com%2Facrobat%2Ftutorials.html&data=05%7C01%7Cbrooke.brammer%40ufl.edu%7Cfa687a99f8814d9457ff08db03a74f10%7C0d4da0f84a314d76ace60a62331e1b84%7C0%7C0%7C638107789339169026%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=hZA7%2FIKCV%2BzbSPu2MjomDnxCbI5usbBdV2%2FMV9lzRso%3D&reserved=0)
* Zoom - [Zoom Privacy Policy](https://explore.zoom.us/en/privacy/)
* 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](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fcommunity.canvaslms.com%2Ft5%2FStudent-Guide%2Ftkb-p%2Fstudent&data=05%7C01%7Cbrooke.brammer%40ufl.edu%7Cfa687a99f8814d9457ff08db03a74f10%7C0d4da0f84a314d76ace60a62331e1b84%7C0%7C0%7C638107789339325259%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=584OMZNA3VDOhfbJir6w2cQXUz118ncUvLFwjg063fw%3D&reserved=0) is provided if you have additional questions.
* View [Canvas Privacy Policy](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.canvaslms.com%2Fpolicies%2Fprivacy&data=05%7C01%7Cbrooke.brammer%40ufl.edu%7Cfa687a99f8814d9457ff08db03a74f10%7C0d4da0f84a314d76ace60a62331e1b84%7C0%7C0%7C638107789339325259%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=MZOYIJ9jHRaqebfqNW15YE%2F6T%2Biy6S6znresFJaVMrQ%3D&reserved=0)
* **Web Browser - Chrome** is the preferred browser for Canvas. If you do not have Chrome, you can [download it.](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.google.com%2Furl%3Fsa%3Dt%26rct%3Dj%26q%3D%26esrc%3Ds%26source%3Dweb%26cd%3D2%26cad%3Drja%26uact%3D8%26sqi%3D2%26ved%3D0CDYQjBAwAQ%26url%3Dhttps%253A%252F%252Fsupport.google.com%252Fchrome%252Fanswer%252F95346%253Fhl%253Den%26ei%3D16T0U_61AZWAygT1vYHoAQ%26usg%3DAFQjCNHFiowHAaPSkTUo-EyAOIeZWDPSCw%26sig2%3DulcujkhFWJawLyO6J0SvpA%26bvm%3Dbv.73231344%2Cd.aWw&data=05%7C01%7Cbrooke.brammer%40ufl.edu%7Cfa687a99f8814d9457ff08db03a74f10%7C0d4da0f84a314d76ace60a62331e1b84%7C0%7C0%7C638107789339325259%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=NJn3IJOjWwtZLgxmHrwwCiuh0EKyquERtWcT9Vs%2FKus%3D&reserved=0)
* University of Florida Email
* Students are expected to check their my.ufl emails daily. View the [Student Computing Requirements](https://it.ufl.edu/policies/student-computing-requirements/) page for information on technology requirements and expectations.

## Prerequisite Knowledge:

Students should have a working knowledge of the major goals and purposes of a total School-Based Agricultural Education program.

## Expected Technical & Digital Literacy 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.

## Artificial Intelligence (A.I.) Use:

Artificial Intelligence (AI) including large language models such as Chat GPT, Grok, Baird, Gemeni etc. are useful tools. These tools can be particularly helpful in the instructional design process. You are welcome to use these tools in this course and on major assignments. If you use these tools, please provide a note that you used the tool when you submit the assignment. The statement should include:

* + The tool you used
  + A sample of the prompt or prompts you used to generate
  + How you edited or used the responses in your assignment

Overuse or relying on AI for large parts of the assignment (more than 25%) is considered a violation of academic integrity. Also, utilizing AI and not providing a proper citation would be considered a violation of academic integrity. For example, asking an AI tool to create a rubric for an assignment would be a violation of this policy for the course. Asking the AI tool to provide a short term outcome for a project would be acceptable.

An example AI statement is:

I used Chat GPT 3.5 for this assignment. I asked to provide ideas for an interest approach for an introductory course in plant sciences on seed germination. I used one of the ideas it generated and edited it to a format I found useful in the lesson plan.

• Please be advised that you cannot use the platforms to create substantial parts of your Report, as this can be defined as plagiarism.

Example: “Write me an introduction on xyz” is not acceptable, however spell-checking for example is acceptable- also refining the style and quality of text through, as long as you generated the input.

• Please be aware that any text uploaded on the platforms will feed into training data, hence it may account for a publication of your work. This is potentially an issue for authorship and originality issues.

AI tools are continuously developing. I encourage you to use the tools to improve your work and to help plan effective instruction. If you have specific questions, I am happy to discuss with you.

# 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. **But what exactly are office hours?** It is time specifically set aside each week for students to physically or virtually drop in and visit with Dr. Easterly. Whether you have questions about the course, assignments, the covered topics, or simply wish to have a casual chat to better get to know each other, these hours are reserved for you. Dr. Easterly strongly encourages students to take advantage of these office hours as an enriching experience for academic support and personal connection.

The major assignments will be graded, with *meaningful feedback* provided,**within one week of their submission**.

# Assignments

## Assignment Points & Explanation:

**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 administers, 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.

## Course Grading:

### Grading Scale

|  |  |  |
| --- | --- | --- |
| A = 950-1000  A- = 900-949  B+ = 870-899  B = 830-869 | B- = 800-829  C+ = 770-799  C = 730-769  C- = 700-729 | D+ = 670-699  D = 630-669  D- = 600-629  E = below 600 |

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 |

**Late Assignment Policy**

Assignments submitted after the due date will be awarded ½ 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.

# University-Wide Policies and Student Support Services

As part of the updated University of Florida Syllabus Policy, this course syllabus refers students to a central online resource that contains the most current university-wide academic policies and student support services. Using this shared link helps ensure that all students receive accurate, consistent, and up-to-date information.

Students are expected to visit and review the centralized UF Syllabus Policy page at: [UF Syllabus Policy Link](https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/). Throughout the term, students are strongly encouraged to return to this page regularly to stay updated on important university expectations and explore available resources. The page includes information on topics such as:

**Academic Policies**

* Attendance requirements and make-up work procedures
* Academic accommodations for students with disabilities
* Grading standards and grade point policies
* Course evaluation instructions and portals
* Student Honor Code and University Honesty Policy
* Guidelines governing the recording and use of class lectures

**Academic Resources**

* E-learning support and technology assistance
* Career and counseling services (Career Connections Center)
* Library access and help services
* Study skills support and tutoring (Teaching Center)
* Writing support (Writing Studio)
* Complaint procedures and academic grievance resources
* UF Student Success Initiative resources

**Campus Health & Wellness**

* Physical, mental, and emotional health services
* Safety and support programs
* UF Whole Gator wellness tools

**AEC 4202 Course Calendar**

|  |  |  |
| --- | --- | --- |
| **Dates** | **Topics / Learning Experiences** | **Due** |
| **Unit 1- Total Program Plan** | | |
| Aug 27 | First Day of Class- Setting the Stage for the Last Day of Class |  |
| Sep 3 | Course Sequencing |  |
| **Unit 2- Course Plan** | | |
| Sep 10 | Standards and Benchmarks |  |
| Sep 17 | Grading Systems, Units, & Syllabus | Curriculum Map Part 1 (Total Program Plan) |
| **Unit 3- Unit Plan** | | |
| Sep 24 | Backwards Design |  |
| Oct 1 | Performance Assessment |  |
| Oct 8 | Formative Assessment |  |
| Oct 15 | Written Assessment | Curriculum Map Part 2 (Course Plan) |
| Oct 22 | Learning Experiences |  |
| **Unit 4- Lesson Plan** | | |
| Oct 29 | Objectives |  |
| Nov 5 | Learning Experiences |  |
| Nov 12 | Industry Certifications (LINC Conference) | Curriculum Map Part 3  (Unit Plan Draft) |
| Nov 19 | Preflection & Reflection |  |
| Dec 3 | Final Presentations |  |
| Dec 10  5:00 PM | No class – Turn in final project | Curriculum Map Part 3  (Unit Plan) |
|  |  |  |