Instructional and Communication Technologies
in Agriculture and Natural Resources
AEC 5541
Fall 2021 – 3 Credit Hours
Department of Agricultural Leadership, Education, & Communication

Instructor

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Office Location: 121D Bryant Hall
Office Hours: by appointment

Class Times	Location
Thursday: Periods 6-8 (12:50 PM – 3:50 PM)	Bryant 107

* It is important you attend as many class meetings as possible, unless you have an excused absence.

Course Description

Planning and producing written and visual instructional and communication materials for programs in the agricultural and life sciences.

Course emphasis:

AEC 5541 will focus on writing, live web-streamed video production, instructional and communication technologies, solutions-focused science communication, and the development and implementation of a real-world electronic field trip.

You will learn skills and knowledge in the following areas:
- Working with scientists, Extension specialists, and STEM subject matter experts
- Theory and practices for PK-12 STEM engagement programming
- Instructional design for non-formal and informal engagement programming
- Development of online Research Sparks for science communication
- Mobile video production, editing, and streaming
- Project management, implementation, and evaluation

Course Objectives

After this course, you will be able to:
1. Create content with STEM subject matter experts to develop science engagement content
2. Analyze and identify relevant STEM education standards for PK-12 learning
3. Develop, implement, and assess a mobile electronic field trip
4. Communicate STEM research via an interactive online Research Spark poster format

You will practice and demonstrate theories and skills through in-class and online discussions, literature review and analysis, and development and implementation of an electronic field trip.

Course Design

This course is structured following a project-based learning (PjBL) design. Our driving question this semester will be:

How can we as science communicators and leaders research and apply information and communication technology to science engagement and learning about the UF/IFAS Honey Bee Research and Extension Laboratory, related research, and careers?

PjBL steps include: (Buck Institute for Education: http://www.bie.org)

- Challenging problem/question
- Sustained inquiry
- Authenticity
- Student voice & choice
- Reflection
- Critique & vision
- Public Product

This class is also designed to follow the 'Partnering Pedagogy' philosophy. We are partners in your learning and will work together to develop pathways and solutions to reach course learning goals.

Course Readings and Resources

Textbook:
There are **no required texts** for this course. Readings will be posted in Canvas.

Online:
Canvas, Microsoft Teams, Adobe Creative Suite (Premier Pro & Photoshop), Canva

Assignments

Instructional Goal	Assignment/Activity	Possible Points
1,2,3	**Research Spark**	
	• Abstract draft	50
	• Spark draft	50
	• Final Abstract & Spark	100
3	**Technology Tool Review and Presentation**	100
3	**Practice Production**	100
	Electronic Field Trip	
1,2,3	• Development	100
1,2,3	• Implementation	100
1,2,3	• Assessment	100
1,2,3	**Final Presentation**	100
1,2,3	**Online Activities (x 8)**	160
	Professionalism	40
	TOTAL	1000

Research Spark
You will develop a research spark about a topic related to our course content and/or electronic field trips. Further instructions will be provided during class and in Canvas.

Technology Tool Review and Presentation
You will identify, research, and apply an instructional/learning/communication technology that could be used to engage audiences/learners in non-formal settings, use the tool, and demonstrate it in class.

Practice Production
You will create practice videos and test a live video stream, similar to our final electronic field trip.

Electronic Field Trip (EFT)
We will work as a class to develop, implement, and assess a pilot electronic field trip.

- **Development**
  Capturing and editing b-roll ahead of time
  Scripting
  Working with scientists
  Recruiting schools
  Developing a Teacher's Guide
  Preparing materials for Google Classroom/other platforms

- **Implementation**
  Live streaming two to three EFTs in various formats
  Field observations
  Questions from schools

- **Assessment**
  Develop, implement, and rough analysis of pre- post-survey of EFT participants

Final Presentation
You will give a final presentation about your literature review, fieldwork observation assignment, and role/learning in the EFT.

Online Activities
You will complete up to 8 online activities throughout the semester. These will include assignments such as discussion boards, written reflections, and skills demonstrations such as video shooting and editing.

Course Grading
The course grading scale is provided in the following section. Papers and out-of-class assignments must be typed and formatted according to instructions provided by me. You will receive specific information well in advance of deadline dates.

Grading scale

A = 93-100%	C+ = 76 – 79.99%	F = Below 60%
A- = 90 – 92.99%	C = 73 – 75.99%	
B+ = 86 – 89.99%	C- = 70 – 72.99%	
B = 83 – 85.99%	D+ = 66 – 69.99%	
B- = 80 – 82.99%	D = 63 – 65.99%	
	D- = 60 – 62.99%	

Further information about UF grading policies can be found here:
https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

General Course Expectations
Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:
https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/

Attendance
You are expected to **attend every class and arrive on time**. If you must miss class, please keep up with the assigned readings, recordings of class meetings, and online activities, so you can make meaningful contributions. If you must miss class and are unable to speak with us in person, leave send an e-mail as soon as possible to both Dr. Loizzo and Jacqueline.

We expect all students to attend 80% of class meetings and to receive full professionalism points. However, we understand in current times that life has disruptions that sometimes we cannot avoid. You can miss **THREE** class meetings – as excused, without a deduction in professionalism points. In the event you cannot attend class, firstly, communicate directly with both Dr. Loizzo **AND** Jacqueline via email. Secondly, if you cannot attend class meetings, you be will required to submit a one-page single spaced summary of the recorded synchronous lecture. This will be due by the end of the semester to be considered eligible for full professionalism credit.

Professionalism
Penalties will be assessed for unprofessional behaviors such as unexcused absences, tardiness, lack of preparation, lack of adequate participation in group assignments, or inattentiveness during class lectures or discussions.

Late Assignments
The ability to meet deadlines is one of the most basic requirements expected of professionals. Announced deadlines are firm for all graded work, unless you receive prior permission from us. Permissions for late submission are granted only for approved university functions or other unique situations that warrant an excused absence as judged by us. Late assignments will receive a 10% deduction in points per each day the assignment is late. For instance, if the assignment is worth 50 points, and you submit it late – you will lose 5 points (10% of the total grade) per each day it is late. Unless otherwise stated, materials are due in class on the deadline date. Computer problems are not a justification for missed deadlines.

Zoom Class Recording Privacy Policy
Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

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 Honor Code and Student Conduct Code.

Online Course Evaluation Process
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/.

Academic Honesty
UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students 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." The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Click here to read the Conduct Code. If you have any questions or concerns, please consult with the instructor or TAs in this class.

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.

Services for Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Click here to get started with the Disability Resource Center](). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Health and Wellness Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources.

- 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.
- 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]().

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]().

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Fall 2021 Tentative* Course Schedule

Week	Topic/Class Happenings	Assignments
ICT, EFTs & SciComm		
1 Aug 23	Welcome, introductions, & syllabus	Intro video How science works
2 Aug 30	• ID, ID models, ICT • EFT background	**Online Activity (OA) 1**
3 Sep 6 (9/6 holiday)	• Research Sparks & Tech Tools • UF/IFAS HBREL • EFT planning	**OA 2**
4 Sep 13	• Scientists as Storytellers • Science standards • EFT planning	**OA 3**
5 Sep 20	• Science communication and engagement • EFT planning • Mobile video production	**OA 4**
Media Literacy, ISE, Tech Tools, and Assessment		
6 Sep 27	• Media literacy • Non/informal science education • EFT development	**OA 5**
7 Oct 4 (10/8 & 9 Homecoming)	• Assessment • Arts-based research • EFT development	**OA 6**
8 Oct 11	**Tech Tool presentations**	
9 Oct 18	• EFT hardware & software practice • EFT development • Research Sparks	**Practice Production**
10 Oct 25	• EFT hardware & software practice • EFT development • Research Sparks	**OA 7** **Practice Production**
EFT Implementation		
11 Nov 1	**EFT Go Live #1**	
12 Nov 8 (11/11 holiday)	No Class Research Spark Draft	
13 Nov 15	**EFT Go Live #2**	
14	No Class	

(Right margin labels:) Background & Planning | Guides, Video Pre-Production, Survey | Implementation

Week	Topic/Class Happenings	Assignments
Nov 22 (11/24 - 27 holiday)	EFT Assessment / Reflection	
EFT Evaluation		
15 Nov 29	EFT Review & Assessment	**Research Sparks**
16 Dec 6 (12/9 & 10 reading days)	No Class	**OA 8**
FINALS Dec 13 (12/20 grades due)	**Final Presentations** **December 14 @ 5:30 PM - 7:30 PM**	

Review, Reflect, & Assess

*This schedule is tentative and subject to change – contingent upon learning progress, project milestone adjustments, instructor discretion, and other unforeseen circumstances.