



**Project Team Research: Building Skills in Agrobiography**  
**“Testing Sustainability”**  
**ALS 4914, Section 3E84**

**SCHEDULE**

Spring 2021; 3 Credits

Tuesday Period 3 (9:35-10:25 am), Thursday Periods 3-4 (9:35-11:30 am)

Office Hours: By Appointment

**INSTRUCTORS**

Dina Liebowitz, PhD

UF/IFAS Field & Fork Campus Food Program

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Anna Prizzia

Director, UF/IFAS Field & Fork Campus Food Program

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**INDUSTRY PARTNER**

*The Illuminate Group*

JP Emond

Melissa Germain

**LOCATION**

Class will be held via zoom link or at the Field & Fork Farm and Gardens, as indicated on the schedule.

**PREREQUISITES**

Pre-approval by instructors

**COURSE DESCRIPTION**

Did you know that more than 15 \*billion\* packages are shipped per year in the US right now? Many of these use Styrofoam and other materials used to insulate and protect the contents, but these materials can pollute the environment for up to a million years, creating an enormous sustainability problem. The Illuminate Group developed novel cold-chain shipping material made of wood, and we will work with our industry partner to field test its compostability.

This course provides hands-on experience in addressing a real-world question faced by an agricultural industry partner. It guides students through the process of working in teams to develop a professional research plan, collect and analyze field research data, and present results to clients. The final project will consist of a written report and a video mini-documentary



that will be submitted to the faculty instructor and shared in a group presentation to the industry representatives.

This course will emphasize three main themes woven throughout the semester: 1) Research design and field research skills, 2) Composting and sustainability themes, and 3) communications and project management skills.

Students will have weekly lectures via zoom, which will then be reinforced and applied through hands-on engagement at the Field & Fork Farm and Gardens. As the semester progresses, students will have more flexibility to organize and conduct their research independently at the farm, with regular feedback and mentoring from instructors.

## STUDENT LEARNING OBJECTIVES

1. *Research Skills:*
  - a. Develop and apply skills in assessing research needs for an industry partner, and developing a research design to answer their questions.
  - b. Demonstrate expertise in conducting field research, analyzing data, and synthesizing a research report.
2. *Sustainability Content:*
  - a. *Composting:* Apply the biological and chemical principles of composting to maintain and monitor a composting operation that could meet organic certification protocols.
  - b. *Sustainability:* Identify and describe components of Design for the Environment, Life Cycle Analyses, and Sustainable Development Goals, and how they relate to sustainability.
3. *Communications:*
  - a. *Project Management:* Design a project management plan with a prioritized task list, group member responsibilities, and a detailed timeline with project deadlines.
  - b. *Communication Formats:* Demonstrate effective science communication skills via a variety of oral, written, and visual methods, with a focus on video story telling.



## COURSE SCHEDULE

Week	Dates	Topic	Location	Activity	Assigned Resources	Assignments
1	Jan 12	Introduction	Zoom			
	Jan 14	- Sustainability, DfE, and Life Cycle Analysis - Literature Review How-tos	Zoom		<a href="#">- Design for the Environment</a> <a href="#">- Overview of LCA</a> <a href="#">- Life Cycle Assessment Video</a>	
2	Jan 19	Meet your Industry Partner!	Zoom	Partner Intro: <b>The Illuminate Group</b>	<a href="#">- Residential Compost Test for EcoChill Insulation</a> <a href="#">- Assessing Compost Quality for Agriculture</a>	
	Jan 21	- Agricultural Field Research - Composting Basics	Farm	Farm Orientation, Team Building & Composting Demo	<a href="#">- The Science and Art of Composting</a> <a href="#">- Compost Recipe Video</a> <a href="#">- Comparing Composting Methods</a> <a href="#">- Mulching Guidelines</a>	
3	Jan 26	Research Design and Developing Data Collection Processes	Zoom		<a href="#">- Research Proposal Guidelines</a> <a href="#">- Agricultural Research Design</a> <a href="#">- Compost Recipe Spreadsheet</a>	Literature review due
	Jan 28	Visual Storytelling	Farm	Guest Speaker: Dr. Loizzo	<a href="#">- Streaming Science</a> <a href="#">- Soul Fire Farm</a>	
4	Feb 2	Student Research Plan Presentations	Zoom	Presentations with <b>The Illuminate Group</b>		Draft research plan and data sheet due
	Feb 4	Experiment Kick-off!	Farm	Build Piles!	<a href="#">- National Organic Program Compost Guidelines</a>	Final research plan due
5	Feb 9	Project Management	Zoom	Develop PM Plan	<a href="#">- PM Beginner's Guide</a> <a href="#">- Project Management (optional)</a>	
	Feb 11	Data collection & Team Building	Farm	Project Management Check-in		
6	Feb 16	Video Project Discussions	Zoom	Guest: Izzy Smith		



	Feb 18	Data collection & Video practice	Farm			Video storyboard due
7	Feb 23	Waste Management and Composting in Gainesville	Zoom	Guest Lecture: UF Office of Sustainability		
	Feb 25	Field Trip to Composting Facilities in Gainesville	Field Trip			
8	March 2	Examining "Waste Free"	Zoom	Guest Lecture: Zero Waste Gnv	- Student-chosen paper - <a href="http://www.foodfuturehack.com/">http://www.foodfuturehack.com/</a>	
	March 4	Data collection	Farm	Seed sprouting Experiment	- <a href="#">Compost Maturity Test: Germination Methods</a>	- Preliminary data due - Hackathon reg
9	March 9	Data Analysis Overview	Zoom		- Student-chosen paper	
	March 11	Delicious Decomposers...	Farm	Start a mushroom bed!	- <a href="#">How to Grow Pink Oyster Mushrooms</a>	
10	Mar 16	Video Draft Presentations	Zoom	<b>The Illuminate Group</b>	- Student-chosen paper	Video draft due
	March 18	Data Collection	Farm			
11	Mar 23	Reflections on Research	Zoom		- Student-chosen paper	
	March 25	Final Data Collection	Farm	Seed Sprouting Experiment 2		Paper outline due
12	Mar 30	Scientific Writing	Zoom		- Student-chosen paper	
	April 1	Video project time	Farm			Paper draft due
13	April 6	Reflections on Teamwork	Zoom	Your role in teams		
	April 8	Video project time	Farm			
14	April 13	Sustainable Development Goals	Zoom		- <a href="#">The 17 Sustainable Development Goals</a>	
	April 15	Reflections on Learning	Farm	Mushroom harvest!		Final Paper Due
15	April 20	Final Video Presentations	Zoom	<b>The Illuminate Group</b>		Video Due
	April 22	Reading Days				



### CLASS FORMAT

The class will meet on Tuesdays for a fifty minute time period via zoom, and on Thursdays for a one hour and fifty minute period in person at the Field & Fork Farm and Gardens, unless otherwise noted on the syllabus. During class, we will cover topics in field research, sustainability, and professional development, plus provide ongoing guidance in conducting a semester-long research project. As the semester progresses, students are expected to take independent initiative in organizing use of their time within the Thursday class period and out-of-class work, with progressively less oversight from instructors. Moreover, additional group or sub-group meetings may be added as needed once the project progresses.

### TEXTBOOK AND READINGS

None required. Initial readings and videos will be assigned for the beginning of the course. Additional readings from literature will be chosen throughout the semester in support of the project questions as they develop. These will be based on additional information required for the design or implementation of the project. Assigned weekly readings will be posted in Canvas or emailed each week. **Readings must be done by the beginning of class on the date they are listed, and completion of readings will be reflected in the participation points.**

### SPECIAL SOFTWARE

None required

### E-LEARNING

**E-learning Canvas.** The entire course will be managed through e-learning using Canvas. All materials will be available in **E-Learning Canvas**, the centrally-supported course management system at UF. Canvas is the on-line source for the majority of your learning resources and assignments in this course. For a link to the tutorial regarding E-Learning Canvas functionality, go to the class home page on canvas. Students enrolled in the course should login to Canvas on the first day of the course at <https://elearning.ufl.edu/>. You will use your Gatorlink name and password to login to Canvas. Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

### ASSIGNMENTS and GRADING

Expectations for each activity will be shared at the time of assignment introduction, with an emphasis on learning and constructive feedback to help you expand your skills as researchers and communicators. Assignments will be **due by 9 am on the due date**, as they will often be discussed and incorporated into class that day.

Activity	Description	Grade Pts (%)
Literature Review	2-page overview of composting research	100



Draft Research Proposal and Data Sheet	Outline of research design and data collection plan	50
Final Research Plan	3-page research plan	100
Visual Storyboard	Outline of video content and flow	50
Preliminary Data	XL spreadsheet of data	50
Paper Outline	Outline of Intro, Methods, Results, and Discussion	50
Paper Draft	4-page research report	50
Video Draft	~5 minute video draft	50
Final Paper		100
Video Presentation		100
Weekly Participation	20 points per week	280
Class Reading	Sharing a reading of interest	20
Hackathon participation	Extra Credit!	100
<b>Total</b>		<b>1100</b>

**GRADING SCALE:**

Score	Percent	Grade	Grade Points
943-1000	93.4-100	A	4.00
900-933	90.0-93.3	A-	3.67
867-899	86.7-89.9	B+	3.33
843-866	83.4-86.6	B+	3.00
800-833	80.0-83.3	B-	2.67
767-799	76.6-79.9	C+	2.33
734-766	73.4-76.6	C	2.00
700-733	70.0-73.3	C-	1.67
667-699	66.7-69.9	D+	1.33
634-666	63.4-66.6	D	1.00
600-633	60-63.3	D-	0.67
0-599	0-59.9	E	0.00

For information on current UF policies for assigning grade points, see

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

**PARTICIPATION**

Your active participation is critical to your success and the quality of your project and experience in this course. Class participation will be graded on attendance, participation in class discussions and team activities, and willingness to collaborate with team members and industry mentors.

**CLASSROOM ETIQUETTE AND DEMEANOR**

Students are expected to arrive for class on time, whether on zoom or at the farm. Cell phones must be muted during class.

**ABSENCES AND MAKE-UP WORK**

Attendance and Make-Up Work 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/ugrad/current/regulations/info/attendance.aspx>.

**ONLINE COURSE EVALUATION PROCESS**

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. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

**ACADEMIC HONESTY**

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 academic misconduct to appropriate personnel. 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: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

**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**

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

**CAMPUS HELPING RESOURCES**

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, [www.counseling.ufl.edu/cwc/](http://www.counseling.ufl.edu/cwc/) Counseling Services Groups and Workshops Outreach and Consultation Self-Help Library Wellness Coaching
- U Matter We Care, [www.umatter.ufl.edu/](http://www.umatter.ufl.edu/)
- Career Resource Center, First Floor JWRU, 392-1601, [www.crc.ufl.edu/](http://www.crc.ufl.edu/)

**STUDENT COMPLAINTS**

- Residential Course: [https://www.dso.ufl.edu/documents/UF\\_Complaints\\_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf)
- Online Course: <http://www.distance.ufl.edu/student-complaint-process>