

CALS Curriculum Committee Meeting

April 24, 2026

McCarty Hall D Rm. 1044/1045

1:00 p.m.

Via Zoom: <https://ufl.zoom.us/j/355458614>

Meeting ID : 355458614

Members: K. Braggs, D. Coenen, T. Easterly, B. Gankofskie, C. Haxton, E. Hellgren, P. Inglett, T. Johns, M. Jones, G. MacDonald, T. Martin, A. Mathews, H. McAuslane, G. Nunez, B. Schutzman, M. Smith, D. Vyas, P. Ward, A. Watson, J. Weeks (Chair), A. Wysocki

Agenda and Index for Materials

Approve Minutes of the March 27, 2026 meeting

Dr. Mathews: Update from UCC

Graduate New Course Proposals

1. ALS 6XXX – Paradigms of Integrative Ecology (req. #22741)
2. EVR 6XXX – Individual Work in Ecology and Environment (req. #22807)
3. EVR 6XXX – Supervised Research in Ecology and Environment (req. #22804)
4. EVR 6XXX – Non-Thesis Project in Ecology and Environment (req. #22808)
5. PLS 6XXX – Plant Breeding Journal Colloquium (req. #22485)

Graduate Course Modification Proposals

6. FYC 6235 – Prevention Science in YDFS (req. #22718)
7. SWS 6722 – AI Modeling in Soil and Ecosystem Sciences (req. #22739)

Curriculum Modification Proposals

8. Proposed Change to FRE Emphasis Food and Agribusiness Marketing and Management (req. #22813)
9. Proposed Change to FRE Emphasis International Food and Resource Economics (req. #22812)

**CALS Curriculum Committee Meeting
Minutes from March 27, 2026
Submitted by James Fant**

Members Present: D. Coenen, T. Easterly, B. Gankofskie, C. Haxton, E. Hellgren, P. Inglett, T. Johns, M. Jones, G. MacDonald, T. Martin, A. Mathews, H. McAuslane, G. Nunez, B. Schutzman, M. Smith, D. Vyas, P. Ward, A. Watson, J. Weeks

Visitors: Natalie Coers, Heidi Radunovich, Brantlee Richter

Call to Order: The College of Agricultural and Life Sciences Curriculum Committee met in McCarty Hall D Rm. 1044/1045 on March 27, 2026. Dr. Weeks called the meeting to order at 1:05p.m.

Previous agenda items and supporting material can be found on the CALS College Committees homepage under document archives: <https://cals.ufl.edu/faculty-staff/committees/>

Approval of Minutes: A motion was made by Dr. Inglett to approve the minutes of the February 20, 2026 meeting of the CALS CC. The motion was approved.

All items approved by the committee will be forwarded to either the Graduate Curriculum Committee (GCC), Graduate Council (GC) or the University Curriculum Committee (UCC) once any changes requested are made and the submission is complete.

Links: Required Documents

- [CALS CC Checklist](#) (required for all course and certificate submissions)
- [CALS Syllabus Template](#) (download the Word document and populate it with your course content)
- [CALS Syllabus Accessibility Quick Reference Tips](#)
- [Video Walkthrough of CALS Syllabus Template](#)

Other Reference Documents

- [General Education Procedures and Application](#)
- [CALS Guidelines for Submission of Proposals for Co-Taught Courses](#)
- [UF Syllabus Policy](#)
- [UF Guidelines for Graduate Certificates](#)
- [UF Guidelines for Undergraduate and Professional Certificates](#)
- [Guide to Course Design](#)
- [CALS Course Objectives](#)
- [How to Write Course Objectives](#)

Dr. Mathews – Update from UCC:

Items discussed in March UCC:

- Entomology program specialization updates approved (items 22553, 22554, 22552)
- PLS2XXX Biological Factors Affecting Food Systems, Quest 2 approved

- ENY UG courses approved (22384, 22540, 22882)
- ENY4660 prerequisite change (22571) approved
- Biology Major, Preprofessional specialization, Critical Tracking update approved
- HOS2XXX Information Literacy in Medicine and Agriculture, Quest 2, approved (20419)

Graduate New Course Proposals

1. FYC 6940 – Supervised Teaching in Family, Youth, and Community Sciences (req. #22588)

A motion was made by Dr. Martin to approve this item as submitted. The motion was approved.

Graduate Course Modification Proposal

2. SWS 6932 – AI and Soil-Ecosystem Sensing Technologies (req. #22704)

A motion was made by Dr. Hellgren to deny this item. The motion was approved. A course must have a permanent prefix and course number to receive AI designation. This designation can't be given to special topics courses. See below for additional comments from Teams.

NEW REQUEST for AI Designation: SWS 6932 AI & Soil-Ecosystem Sensing Technologies	Patrick Inglett, Kayla Braggs, Diwakar Vyas, Greg Macdonald, Heather McAuslane
Should AI designation also include course request (SWS6932 is temp)?-PWI Agreed. Would the AI committee even consider adding an AI designation to a course without a formal course number? HJM	
Ensure that all changes made to items in syllabus are also reflected on form.-PWI	
“Develop deep understanding how to model soil and ecosystem properties, functions, and services using sensor data and artificial intelligence (AI)”. Add “of” between understanding and how. HJM	
Instructor location should be office/lab...not the departmental mailing address. - PWI	
Learning Objectives/Outcomes: Why the need for separate objectives (could be course overview) and outcomes? Course/learning objectives should be observable and measurable, so verbs like ‘discover’ and ‘explore’, or ‘critically think’ and ‘gain understanding’ do not work. Some of these could work if simplified...e.g., CO#2 could simply be “Use machine and deep learning methods to analyze...”, and LO#2 could be “Apply sensing technologies in....”. -PWI	

i believe you must use the SLO verbatim from this site <https://ai.ufl.edu/teaching-with-ai/for-uf-faculty/ai-course-designations/> in your syllabus depending on your course categorization.

This is the one for Use AI (Use and Apply) - **SLO3**. Select and/or utilize AI tools and techniques appropriate to a specific context and application. (HJM)

Agree with previous comment-see the syllabus example on AI designation website which includes a section on AI designation SLO and how this will be assessed in the course. -PWI

Grading and grading scheme: Consider revising the grading description to be based on points (like the grading scheme table) and show the total of 100 points possible. -PWI

I would suggest a table of weeks, content, readings, and assignments, rather than stating that the calendar will be placed in Canvas. (HJM)

As mentioned by Dr. Matthews, standard syllabus statements and links needs to be updated. -PWI

<https://syllabus.ufl.edu/syllabus-policy/uf-policy-on-course-syllabuses/> Simple syllabus will allow you to link to the boilerplate syllabus language and will likely not want you to copy and paste that into the syllabus. That way the students are always getting the most up-to-date policies. If you want to emphasize certain policies (like the unexcused absences) you might talk about that at the first class. (HJM)

Undergraduate New Course Proposals

3. IDS 2935 – Silos or Systems?: Leadership for Global Uncertainty (req. #22118)

Please be sure to make all requested changes to both the UCC form and syllabus if necessary. A motion was made by Dr. Easterly to approve this item with edits required. The motion was approved. Adjust the course description to CALS specific requirements. Work with Dr. Easterly to develop learning objectives for the syllabus. See below for additional comments from Teams.

ITEM	REVIEWERS
NEW REQUEST for Quest 2 Designation: IDS 2935 Silos or Systems?: Leadership for Global Uncertainty	Tre Easterly, Adam Watson, Melissa Jones, Caroline Haxton

- Course Description: Descriptions must be 500 characters or less. MS Word says that course description (without spaces) is 515 characters. -AW
- Grading Scale: Are partial points awarded? If so, it may be helpful to state somewhere how those are treated (e.g., 449.5 rounded up/down?) to clearly since your grading scale doesn't include strict cutoffs (alternatively, you could add those). -AW
- More of a suggestion and not an issue at the CALS CC, per se. I would perhaps either move the due dates and points from each assessment under the "Description of Graded Work" section to the Annotated Weekly Schedule section. They're already listed in the Graded Work at a Glance section by week anyways but in this way, it puts them in a clearer chronological order of due date (could include points here again too). Then the descriptions can be just that -AW
- I think Week 15 should be removed (maybe label as Break) and Week 16 changed to Week 15 since it is based on how many weeks of instruction in a semester. -AW
- Is this a template used specifically for Quest 2 courses? Based on the CALS Syllabus template, seems most of the Required Policies in Section VI. should be replaced with new boilerplate statements. See CALS Syllabus Template: <https://cals.ufl.edu/faculty-staff/cals-committees/> <---Expand Information & Documents
- Suggestion: Put UF Grading Policy right before your grading structure table. -AW
- Consider AI-policy, technical support with contact info. -AW
- There are no course objectives. I do not believe using the generic quest LOs without coming up with course specific objectives is suitable for this course. -TE

4. PLP 4XXX – Medical Mycology (req #22701)

A motion was made by Dr. Coenen to approve this item as submitted. The motion was approved.

Undergraduate Course Modification Proposal

5. HOS 2333 – Fighting Food Waste and Loss (req. #22703)

Please be sure to make all requested changes to both the UCC form and syllabus if necessary. A motion was made by Dr. Johns to approve this item with an edit required. The

motion was approved. The course description in the syllabus must match the description on the UCC form. Any additional information can be included under a different heading.

Certificate

6. Proposed New Graduate Certificate – Water Policy (req. #22325)

A motion was made by Dr. Ward to approve this item as submitted. The motion was approved.

Discussion

AEC Curriculum Approval Standard Operating Procedures

The meeting was adjourned at **2:30** p.m.

Cover Sheet: Request 22741

ALS 6XXX - Paradigms of Integrative Ecology

Info

Process	Course New Grad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Michael Sisk mjsisk@ufl.edu
Created	3/20/2026 2:01:39 PM
Updated	4/20/2026 4:33:41 PM
Description of request	This Course Has Been Taught Under ALS 5932 Course Prefix & Number (Special Topics), Would Now Like To Move Forward With Request For A Real Course Number (ALS 6XXX) From Statewide Course Numbering System.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Soil and Water Science 60210000	Patrick Wilson		3/23/2026
CALS Curriculum Committee Submission Checklist_3_20_26.pdf					3/20/2026
College	Pending	CALS - College of Agricultural and Life Sciences			3/23/2026
No document changes					
Graduate Curriculum Committee					
No document changes					
University Curriculum Committee Notified					
No document changes					
Statewide Course Numbering System					
No document changes					
Graduate School Notified					
No document changes					
Office of the Registrar					
No document changes					
College Notified					
No document changes					

Course|New for request 22741

Info

Request: ALS 6XXX - Paradigms of Integrative Ecology

Description of request: This Course Has Been Taught Under ALS 5932 Course Prefix & Number (Special Topics), Would Now Like To Move Forward With Request For A Real Course Number (ALS 6XXX) From Statewide Course Numbering System.

Submitter: Michael Sisk mjsisk@ufl.edu

Created: 3/20/2026 2:40:19 PM

Form version: 3

Responses

Recommended Prefix ALS

Course Level 6

Course Number XXX

Lab Code None

Course Title Paradigms of Integrative Ecology

Transcript Title Paradigms Integrative Ecology

Delivery Method PC - Primarily Classroom (0-49% of course content taught outside of classroom)

Effective Term Earliest Available

Effective Year Earliest Available

Rotating Topic No

Repeatable Credit? No

Amount of Credit 3

S/U Only? No

Contact Type Regularly Scheduled

Course Type Lecture

Weekly Contact Hours 3 Hours Of Contact Each Week On Average Throughout The Duration Of The Course.

Course Description Presents a rigorous understanding of the ecological principles and paradigms that shape the natural world and inform it's conservation through theoretical, empirical, and applied examples. Synthesizes the trinity of ecological approaches (field observations, experiments, and modeling) to understand how ecology, natural sciences, social sciences, sustainability, and data science are connected.

Prerequisites N/A

Co-requisites N/A

Rationale for Placement in the Curriculum Graduate-Level Course Proposed To Be Co-Owned By College of Agricultural and Life Sciences & Soil, Water, and Ecosystem Sciences Dept. This Co-Ownership Would Allow For This Course To Count Towards Major Letter Graded Credit For Any College of Agricultural and Life Sciences Graduate Student Who Takes As Part Of Their Graduate Program. We Noticed There Was A Need In CALS and SWES For A Strong, Fundamental Ecology Graduate-Level Course For PHD and MS Grad Students To Take In Their First Year Or Two In Graduate School. Paradigms in Integrative Ecology Will Ground Students In Core Ecological Principles & Contemporary Research While Drawing Explicit Connections Across Ecology, Data Science, Sustainability Studies, Social Science, and Natural Science. While Covering How Field, Experiential & Modeling Approaches Combine To Create Great Science, This Course Equips Students To Think Critically Across Disciplines & Apply Ecological Concepts To Real-World Challenges In Restoration & Management.

Syllabus Content Requirements All Items Included

CALS Curriculum Committee Submission Checklist

Updated January 2026

NOTE: This checklist must be included with all course and certificate submissions.

The checklist below is intended to facilitate course and certificate submissions to the University of Florida Academic Approval Tracking System (<https://approval.ufl.edu/>). The checklist consists of the most common items that can cause a submission to require changes or be recycled. Contrary to information provided on the UF approval site, the CALS Curriculum Committee requires a syllabus be submitted with each new course or course modification request. Please note that submitters are encouraged to attend the CALS CC meeting at which their item is being reviewed. This allows the submitter to answer any potential questions that may arise that could cause the item to not be approved. Also, be aware that when completing the UCC form the section Description of Request is asking for a brief statement about what you are doing. This is **not** the place for a course description. A statement such as “Proposal of a new undergraduate course” is all that is needed. Please do not submit documents in pdf format. All documents should be submitted in Word to facilitate editing on our end if necessary.

CHECKLIST: PLEASE INITIAL OR MARK N/A FOR EACH STATEMENT TO INDICATE YOUR COMPLIANCE.

SYLLABUS: You are encouraged to use the CALS ACCESSIBLE SYLLABUS TEMPLATE. Accessibility will be required by APRIL 2026.

****Use of Simple Syllabus will be required for Summer 2026 forward. It is slated to be released to faculty in late February 2026.****

MJS It is required when making a submission that you consult your department’s representative to the CALS CC. A list of current members can be found on the committee site located at: <https://cals.ufl.edu/faculty-staff/committees/>.

MJS Submission of a course modification requires both the current version of the course syllabus and the proposed version.

MJS Joint course submissions must include 1) both graduate and undergraduate syllabuses and 2) a separate document outlining the substantial (more than one) differences in assignments between the two courses. These assignments must account for at least a 15% difference in graded material between the two levels. If this is a new course submission both courses must be submitted for approval simultaneously.

MJS The course description on the UCC form and in the syllabus must match and should be no longer than 500 characters. FOR AN EXISTING COURSE, THE DESCRIPTION **MUST MATCH THE CATALOG DESCRIPTION**. Follow the [COURSE DESCRIPTION GUIDELINES](#) for new courses if not contraindicated by outside certification requirements. Any other information you wish to include needs to be under a different heading such as background or additional course information.

__MJS__ The course learning objectives must be consistent with Bloom's taxonomy. Please see the following link at the CALS Curriculum site. (https://cals.ufl.edu/content/PDF/Faculty_Staff/cals-courseobjectives.pdf). Do not use the words demonstrate or understand when listing learning objectives.

__MJS__ The course schedule should be concise and include the appropriate number of weeks in the semester.

__MJS__ All graduate course submissions must include a reading list if a textbook is not required. The reading list should include at least some current readings (within the last 5 years). All readings do not need to be current.

__MJS__ Outside consultations are required if there is a possibility of the proposed course covering a significant amount of material taught in another department or college on campus. There must be a consult form completed by the chair of the department from who you are seeking the consult. Instructors may provide additional consults. The form can be found at: <https://approval.ufl.edu/policies/external-consultations/>.

__MJS__ Prerequisite courses are required for 3000 and 4000 level courses. This line of the approval form cannot be "none" or left blank. Junior or senior standing is an acceptable option. A phrase such as "a course in basic biology" is not acceptable. (Graduate courses should not have specific courses listed as prerequisites. If needed a statement of skills required prior to taking the course can be provided under other course information.)

__MJS__ Decimal points must be included in the grading scale if grade cut-offs are based on percentages. While this is not a university policy it is a CALS standard practice to avoid any confusion when final grades for the course are determined.

__MJS__ The attendance and make-up policy in a syllabus cannot contradict the university's policy. Do not include any additional wording to this policy. A statement and link regarding this are included in the CALS Syllabus Statements. For the approval process the college suggests a less is more view when it comes to this policy.

__MJS__ The most recent version of the UF Syllabus Statements. Using the accessible syllabus template will ensure you have the most up to date statements. Do not use boilerplate statements from an old syllabus as they are likely to be out of date.

Certificates

If proposing a new undergraduate or graduate level certificate that includes any courses outside of the submitters department a statement regarding any possible impact on those courses needs to be included. An email from the instructor is acceptable. Also, any courses required for the certificate must have permanent prefixes and course numbers. The submission must include intended catalog copy. (Contact Dr. Anne Mathews (anne.mathews@ufl.edu) for further instruction)

ALS6### Paradigms of Integrative Ecology

Fall, 2026
In-person, 3 credits

Instructor: Dr. Marc Hensel mhensel@ufl.edu

McCarty A 3159 (352) 325-6078

Office Hours: Tuesdays 2-4pm or by appointment

Course Description

Presents a rigorous understanding of the ecological principles and paradigms that shape the natural world and inform its conservation through theoretical, empirical, and applied examples. Synthesizes the trinity of ecological approaches (field observations, experiments, and modeling) to understand how ecology, natural sciences, social sciences, sustainability, and data science are connected.

Course Learning Objectives

Obj I. Given classic studies and cutting-edge research from the primary literature, students will compare how different ecological approaches are used to create and overturn paradigms throughout the course.

Obj II. Throughout the course, students will compare and contrast how different approaches yield similar or different inferences across multiple fields of study

Obj III. At the completion of the course, students will be able to evaluate the usefulness and applicability of interdisciplinary ecological concepts for conservation, restoration, and management.

Obj IV. At the end of the course, students will effectively convey scientific thoughts and conceptual analyses in their writing, class discussions, and oral presentations.

Course Overview and Purpose

Paradigms in Interdisciplinary Ecology aims to facilitate engagement through student-led paper discussions and instructor-led lectures. The course is centered around four to five modules, each covering a broad ecological topic. Each module will begin with an instructor-led class, where I will lecture about the topic. For these classes, students will be assigned a few papers to read in preparation. For the other two classes per module, a group of two students will lead paper discussions on three papers selected for each topic. All class meetings will be three hours long with breaks in between papers.

Integrative Ecology Modules: Lectures and Student-led Discussions

For the first meeting of each module, I will lecture on the module topic. The goal of these lectures is to get everyone to the same level of understanding for the topic, to best prepare us for the paper

discussions that are to come. These module lecture classes will have paper readings assigned, usually a review paper and a classic paper or two. Module lectures will take up that whole week's class. Modules vary in length based on the profile of students in the class and recent developments within each field. I will get to know students' research interests and dissertation topics in the first few weeks and can tailor later modules to touch on common interests in the group. Similarly, recent developments in some fields may warrant a stronger focus.

For the second and third meetings for each module, a student or student group of two will be responsible for leading a discussion on three papers. For each paper, the student will give a 5 minute summary of the paper. This discussion leader will also provide a written summary of the paper and at least four discussion questions to be brought up during class. These summaries and questions should be posted to eLearning two days prior to the discussion. The student may facilitate discussions by creating a small presentation and/or visualization for the paper. For example, the most important figures can be extracted, enlarged, and projected upon the whiteboard/on the virtual board for annotation and pointing out important aspects. Other aspects of these visual aids could include pictures of the study system and organisms, or depictions of the patterns and processes described in the paper.

Theory Week

Towards the end of the course, we will conduct Theory Week, where classes will be focused on ecological theories and how they are applicable to the processes that govern the conservation, restoration, and management of terrestrial and marine ecosystems. Each student will tackle different ecological theories and create a short presentation that: a) describes and depicts the ecological theory, b) shows examples of empirical evidence for the theory, and c) outlines how the ecological theory could be used by scientists or managers focused on conservation issues. For c), I encourage the student to focus on how they can use their selected theories to improve their own dissertation or thesis research and discuss how their theory could be tested in their study system. The rest of the class will act as the managers of said study system who are interested but skeptical of the applicability of ecological theory in their area. If students can not select study systems relevant to their dissertation topic, you can select a local Florida ecosystem of interest. The presenting student(s) will provide specific examples and predicted outcomes of new, theory-focused ecosystem conservation strategies. The students will be graded on their presentation and participation (20% of final grade) and on a written Theory-based Study or Management Plan (15% of final grade).

Course Prerequisites

None

Other Course Information

I expect that you will have had instruction in ecology with experience in related disciplines such as evolution, statistics, or biomathematics. Because this is a graduate course, I expect a high level of intellectual engagement with the material. Other intangible prerequisites include intellectual curiosity, and enthusiasm.

Textbooks, Learning Materials, and Supply Fees

No Textbooks required. All reading materials will be provided on canvas and are accessible via google scholar.

Class Demeanor/Expectations

Class participation is crucial for success in this course. Students are expected to pay close attention and contribute to paper discussions in every class. Students will be graded on participation and should not be checking email, surfing the web, or otherwise electronically (dis)engaged. Keep phones off please.

Technical Support

UF Computing Help Desk & Ticket Number: All technical issues require a UF Helpdesk Ticket Number. The UF Helpdesk is available 24 hours a day, 7 days a week. <https://helpdesk.ufl.edu/> | 352-392-4357

Weekly Course Schedule

Each non-lecture week will consist of one paper led by the instructor and about two papers for the student led paper discussion. Unless otherwise indicated, this class will meet once per week for three hours. At the beginning of the semester, we will conduct a pre-assessment of student's knowledge of ecological principles and paradigms, so I know the incoming level of understanding for the class. Some modules may be added or removed based on the pre-assessment.

NOTE: Papers are subject to change, so check Canvas>Files 1 week before each class meeting to get correct papers

Module 1: Biodiversity

Exploring how biodiversity is changing, what it means for ecosystems, and how biodiversity affects humans

Week 1: Class Outline | Approaches to Studying Ecology

BIODIVERSITY LECTURE

Readings:

How to lead a good paper discussion

Cardinale et al 2012 (Nature)– Biodiversity loss and its impact on humanity

Week 2: Biodiversity Effects on Ecosystems

Readings:

Stachowicz et al 1999 (Science)- *species diversity and invasion resistance*

van der Plas et al 2016 (Nat Comm)– *BEMF mechanisms in Euro forests*

Fründ et al 2013 (Ecology)- *bee diversity effects on seed production*

Week 3: Biodiversity Effects on Ecosystem Services

Readings:

Worm et al 2006 (Science)- *Biodiversity loss on ocean ecosystem services*

Reynolds et al 2012 (Plos1)- *Genetic diversity amplifies restoration success*

Gamfeldt et al 2013 (Nat Comm)- *Forest tree diversity and services*

Module 2: Species Interactions

Understanding how species interactions can cascade to control the structure and function of terrestrial and aquatic ecosystems

Week 4: SPECIES INTERACTIONS LECTURE

Readings:

Paine 1966 (American Naturalist) – *keystone predation in intertidal food webs*

Estes et al. 2011 (Science) – *trophic downgrading*

*DISCUSSION: Bruno et al 2003 (TREE)- *facilitation and ecological theory*

Week 5: Top-Down Control

Readings:

Estes and Palmisano 1974, Estes et al 1998 *Aleutian islands trophic cascade*

Hawlena et al 2012 PNAS non consumptive effects

Schmitz et al 2023 –rewilding

Week 6: Positive Interaction Networks

Readings:

Palmer et al 2008 Science ant plant mutualism

Angelini et al 2016 Nat Comm mutualism drought

Bertness et al 2024 TREE SGH review

Module 3: Global Change

Exploring foundational ecological principles within the context of global change

Week 7: GLOBAL CHANGE LECTURE

Readings: Scheffers et al 2016 (Science)- Broad footprint of climate change

Folke et al 2021 Our Future

Week 8: Climate Change effects on Ecological Processes

Readings:

Harley 2011 rocky shore predator interactions

Rasher et al 2020 Aleutian reefs

Smale et al 2022 kelp species substitution

Week 9: Novel Ecosystems and the Anthropocene

Readings:

Hughes 1994 *Nature* Jamaica coral reef phase shift

Higgs 2016 *Restoration Ecology* Novel ecosystems concept

Volpe et al 2024 *Restoration Ecology* Bionovelty and restoration

Module 4: Spatial Ecology

Applying ecological principles across spatial scales

Extra Readings: MacArthur & Wilson 1967 – The Theory of Island Biogeography

Levins 1969 (American Naturalist) – metapopulation framework OR Hanski 1998 (Nature) – empirical metapopulation research and the core-satellite species idea.

Week 10: Connectivity

Readings:

Haddad *et al.* 2015 (Science Advances) – habitat fragmentation experiments over 35 years

Resasco *et al.* 2014 (Ecology) fire ant corridor experiment

Harrison *et al.* 2020 (PNAS) connectivity in marine reserves

Module 5: Conservation and Restoration

Applying ecological principles to rebuild and conserve ecosystems

Week 11: Nature Based Solutions | Traditional Knowledge

Temminck *et al.* 2020 (Nature Communications) Ecomimicry for coastal restoration

Seddon *et al.* 2000 (Proc B) – ecosystem services and nature based solutions review

Molnar *et al.* 2020 (J o Applied Ecology)- using TEK for grassland management

Week 12: Ecological Theory in Restoration

Discuss Theory Week Project

Readings:

Silliman *et al.* 2023 (Current Biology)- Harnessing Ecological Theory for Restoration

Week 13: Restoration Ecology

Readings:

Fischmann *et al.* 2024 (Restoration Ecology)- facilitation and dune restoration

Silliman *et al.* 2015 (PNAS)- facilitation shifts paradigms in coastal restoration

Jones *et al.* 2018 (Proc B)- restoration and repair of Earth's damaged ecosystems

THEORY WEEK

Week 14: Applying Ecological Theories to Conservation and Restoration

Theory Week presentations*

*Note: this class may go longer than scheduled.

Each student will tackle one ecological theory and create a 15 min presentation that: a) describes and depicts the ecological theory, b) shows examples of empirical evidence for the theory, and c) outlines how the ecological theory could be used by scientists or managers focused on conservation issues. For c), students will also submit their final project, a **Theory Week Study Plan**.

Grading Policy

Course grading is consistent with [UF grading policies](#).

Course Grading Structure

Class Participation (2.5% per class = 35%): Active participation in every week's class discussions.

Asking questions about the paper, offering critiques and praises, and active listening to other students discussions are some of the actions required for full class participation grades. *Students who can not attend a class but contact me beforehand. You will be given an opportunity to write up a half page summary of each paper to get credit for class participation that day.*

Paper Summaries as Discussion Leader (15% + 15%): Evaluation of the quality of a student's two week as a paper discussion literature. Evaluations will include how well the student summarize the gaps in knowledge and take home message of each paper we read in class, and the quality of the discussion questions the student generates.

Theory Week Presentation (20%): Quality of final Theory Week presentation. Theory Week Presentation Rubric will be provided after week 10, and is attached to the syllabus below. Theory Week Presentations will be Nov 19th.

Theory Week Restoration Plan (15%): Written restoration or management plan using ecological theories to enhance the restoration, management, or conservation of their study system. Theory Week Restoration Plan Rubric will be provided after week 10. Assignment is due to me by Dec 4th.

Grading Scale

Percent of total points	Letter Grade
93.00-100%	A
90.00-92.99%	A-
87.00-89.99%	B+
83.00-86.99%	B
80.00-82.99%	B-
77.00-79.99%	C+
73.00-76.99%	C
70.00-72.99%	C-
67.00-69.99%	D+
63.00-66.99%	D
60.00-63.99%	D-
<60.99%	F

Academic Policies and Resources

Academic policies for this course are consistent with university policies. See

<https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>

Campus Health and Wellness Resources

Visit <https://one.ufl.edu/whole-gator/topics> for resources that are designed to help you thrive physically, mentally, and emotionally at UF.

Please contact [UMatterWeCare](#) for additional and immediate support.

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.

Privacy and Accessibility Policies

- Instructure (Canvas)
 - [Instructure Privacy Policy](#)
 - [Instructure Accessibility](#)

Reading List

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Paradigms in Ecology: Theory Week Final Project

The final project for Paradigms in Ecology is a student-led presentation and paper focused on how ecological theory informs conservation, restoration, and management. Each student will select one ecological theory (or, if appropriate, two) and demonstrate how a theory-to-practice framework can guide real world ecological decision making.

Objectives

This project is designed to challenge you to:

1. Deepen your understanding of a foundational or emerging ecological theory.
2. Connect ecological theory to empirical evidence from the literature.
3. Apply theory to a real-world restoration context.
4. Develop and communicate theory-based restoration plans or management strategies.

Project Components

1. Theory Based Restoration Presentation (Nov 19)

Each student have a 20 minute time slot to deliver a ~10-15 minute presentation, followed by discussion or questions. Presentations must include visuals (slide show in powerpoint, or some other method) and accomplish three objectives:

i. Describe and depict the ecological theory.

Explain the key mechanisms, predictions, and assumptions. Include at least one visual or conceptual diagram of the theory.

ii. Present empirical evidence.

Summarize key studies that have tested, supported, or refined the theory. Emphasize experimental or observational evidence. Present any important context dependence in said evidence.

iii. Apply the theory to the restoration or management of your focal ecosystem.

Describe how this theory can inform ecosystem management or restoration. Focus on your own study system, a system you know well that needs restoration/management, or select a local Florida ecosystem. Describe specific examples and predicted outcomes of a new, theory-based restoration plan or management strategy. I recommend choosing specific study systems instead of broad ecosystem type (i.e., "sand dunes of Northeast Florida" instead of "sand dunes") to help focus on specific environmental challenges in your system.

The rest of the class will act as managers or stakeholders of the focal ecosystem. Their role is to ask critical, constructive questions about how theory can improve applied ecological outcomes. They will fill out an evaluation form assessing how convinced you were that applying your theory will benefit restoration or management. Note that you will want to make sure you give us enough background on your system, so we can best judge the value of your restoration or management plan. See Presentation Rubric for more details on judgement.

Presentation Rubric:

Category		Excellent	Good	Adequate	Needs Improvement
1. Conceptual Understanding of Ecological Theory	25 pts	Demonstrates deep, accurate understanding of the theory, including mechanisms, assumptions, and scope. Clearly situates theory within broader ecological paradigms.	Solid understanding with minor inaccuracies or gaps.	Partial understanding; mechanisms or assumptions unclear.	Major conceptual errors or lack of understanding.
2. Integration of Empirical Evidence	20 pts	Multiple, well-chosen studies directly tied to theoretical predictions; clear synthesis of empirical support, especially in the focal ecosystem.	At least one relevant empirical example with sound interpretation.	Minimal or weakly connected empirical evidence.	No or irrelevant empirical support.
3. Application to Management or Restoration	25 pts	Creative, specific, and well-reasoned application of theory in chosen system; clear explanation of how theory changes management decisions/restoration strategies and <u>predicts measurable outcomes</u> ; highlights how those outcomes will be measured.	Logical connection between theory and application but lacking full development.	Application vague or generalized; limited connection to management.	No meaningful application presented.
4. Communication and Organization	15 pts	Presentation is organized, engaging, and visually clear; timing appropriate.	Generally clear and organized with minor pacing or structural issues.	Uneven organization; visuals need refinement.	Disorganized or unclear; visuals missing or ineffective.
5. Response to Questions and Discussion	15 pts	Effectively engages audience and responds thoughtfully to questions.	Clear responses with moderate engagement.	Limited engagement; difficulty addressing questions.	Little to no engagement; unable to answer questions.

2. Written Theory-Based Restoration or Management Plan (Dec 4)

Due one week after your presentation, this written component expands on your presentation by formalizing your ideas in the structure of a short restoration plan proposal. No page requirement or limit, so use your best judgement on how thorough you need to be. I expect a good restoration plan will be ~3-5 pages, not including references and figures. See Written Plan rubric for more details

Required sections:

1. **Background:** Describe your chosen ecosystem (**Study Area**) and **The Problem**, the major challenges for restoration or management in your system.
2. **The Theory:** Identify and summarize your chosen ecological theory and its relevance to ecosystem restoration and/or management. Provide concise evidence supporting the theory's mechanisms or predictions.
3. **Theory-Based Restoration or Management Plan:** Describe your restoration plan, and how your theory could inform a restoration or management strategy that addresses The Problem head on. In addition to your justification for theory-based restoration, adapt Figure 1 in Silliman et al 2024 for your restoration plan.
4. **Predicted Outcomes and Evaluation:** Depict what restoration/management outcomes would look like with and without integrating theory. Include at least one **original or adapted figure or conceptual diagram*** showing this contrast. Describe how you will evaluate the success of your plan and, specifically, how you will evaluate if incorporating theory aided in restoration success.
*Your figure should illustrate the **expected benefits or measurable outcomes** of theory-informed management (e.g., increased resilience, biodiversity, or stability). Clearly outline how these outcomes would be quantified or assessed.
5. **References:** Cite relevant peer-reviewed literature in standard format throughout the whole paper.

Written Plan Rubric:

Category		Excellent	Good	Adequate	Needs Improvement
1. Background and Problem Definition	10 pts	Clearly and concisely describes the ecosystem context and defines "The Problem" driving the need for restoration. Describes challenges to restoration success. Demonstrates understanding of ecological and restoration challenges and sets up how these challenges will be addressed by incorporating theory.	Provides relevant background and problem statement but with minor gaps in clarity or specificity.	Background or problem statement present but incomplete, overly general, or unfocused.	Missing or unclear background; problem not defined or disconnected from the study system.
2. Theoretical Foundation and Empirical Support	15 pts	Demonstrates precise, nuanced understanding of the selected theory and its relevance to	Explains the theory clearly and includes at least one relevant empirical	Provides limited or loosely connected discussion of the	Theory poorly explained, inaccurate, or

		restoration. Integrates multiple, high-quality empirical studies that support or test the theory's predictions.	example, though synthesis or connection to application could be stronger.	theory and empirical evidence.	unsupported by evidence.
3. Theory-Based Restoration or Management Plan	20 pts	Presents a creative, well-justified plan applying theory directly to restoration or management. Clearly explains how theoretical principles alter management strategy or improve outcomes.	Plan is logical and relevant but lacks full integration of theory or sufficient justification for its use.	Plan described but weakly connected to theory; justification incomplete.	No clear plan or link between theory and practice.
4. Predicted Outcomes, Figure, and Evaluation	15 pts	Includes a clear, original or adapted figure comparing outcomes with and without theory. Outcomes are realistic, measurable, and directly linked to the problem and theory. Provides a clear evaluation framework showing how success and theory effects will be measured.	Figure and predicted outcomes included but lack full clarity or specificity. Evaluation plan somewhat underdeveloped.	Figure or evaluation plan minimal or vague; predicted outcomes speculative.	Missing or unclear figure and evaluation plan; no method to assess success or role of theory.
5. Writing, Organization, and References	15 pts	Writing is concise, clear, and precise. Sections flow logically. Citations are accurate, complete, and consistently formatted.	Writing generally clear with minor structural or citation issues.	Some disorganization or unclear phrasing; inconsistent citation format.	Poorly organized, unclear writing or missing citations.

Cover Sheet: Request 22807

EVR6905 Individual Work in Ecology and Environment

Info

Process	Course New Grad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Danny Coenen dcoenen@ufl.edu
Created	4/9/2026 9:00:38 AM
Updated	4/21/2026 12:40:10 PM
Description of request	SNRE is requesting the creation of a 6905 course for independent work.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Interdisciplinary Ecology	Konda Reddy		4/9/2026
CALS CC Checklist-7-2.pdf					4/9/2026
Note on syllabus accessibility.docx					4/9/2026
College	Pending	CALS - College of Agricultural and Life Sciences			4/9/2026
No document changes					
Graduate Curriculum Committee					
No document changes					
University Curriculum Committee Notified					
No document changes					
Statewide Course Numbering System					
No document changes					
Graduate School Notified					
No document changes					
Office of the Registrar					
No document changes					
College Notified					
No document changes					

Course|New for request 22807

Info

Request: EVR6905 Individual Work in Ecology and Environment

Description of request: SNRE is requesting the creation of a 6905 course for independent work.

Submitter: Danny Coenen dcoenen@ufl.edu

Created: 4/21/2026 12:41:14 PM

Form version: 5

Responses

Recommended Prefix EVR

Course Level 6

Course Number 905

Lab Code None

Course Title Individual Work in Ecology and Environment

Transcript Title Indiv Work in Ecology & Env

Delivery Method PC - Primarily Classroom (0-49% of course content taught outside of classroom)

Effective Term Earliest Available

Effective Year Earliest Available

Rotating Topic No

Repeatable Credit? Yes

Multiple Offerings in a Single Semester No

If repeatable, # total repeatable credit allowed 12

Amount of Credit Variable

If variable, # min 1

If variable, # max 6

S/U Only? No

Contact Type Directed Individual Studies

Course Type Independent Study

Weekly Contact Hours Variable, depending on the number of credits a student registers for.

Course Description Faculty-guided individual research or study of material not covered in formal courses. The number of credit hours will vary based on the scope of the student's work.

Prerequisites N/A

Co-requisites N/A

Rationale for Placement in the Curriculum SNRE does not currently have a 6905 course code. This course will be used by students in the Interdisciplinary Ecology Master's and Ph.D. programs to earn credit for directed independent studies to complement their learning and non-thesis project, thesis, or dissertation research.

Syllabus Content Requirements All Items Included

CALS Curriculum Committee Submission Checklist

Updated January 2026

NOTE: This checklist must be included with all course and certificate submissions.

The checklist below is intended to facilitate course and certificate submissions to the University of Florida Academic Approval Tracking System (<https://approval.ufl.edu/>). The checklist consists of the most common items that can cause a submission to require changes or be recycled. Contrary to information provided on the UF approval site, the CALS Curriculum Committee requires a syllabus be submitted with each new course or course modification request. Please note that submitters are encouraged to attend the CALS CC meeting at which their item is being reviewed. This allows the submitter to answer any potential questions that may arise that could cause the item to not be approved. Also, be aware that when completing the UCC form the section Description of Request is asking for a brief statement about what you are doing. This is **not** the place for a course description. A statement such as “Proposal of a new undergraduate course” is all that is needed. Please do not submit documents in pdf format. All documents should be submitted in Word to facilitate editing on our end if necessary.

CHECKLIST: PLEASE INITIAL OR MARK N/A FOR EACH STATEMENT TO INDICATE YOUR COMPLIANCE.

SYLLABUS: You are encouraged to use the CALS ACCESSIBLE SYLLABUS TEMPLATE.

Accessibility will be required by APRIL 2026.

****Use of Simple Syllabus will be required for Summer 2026 forward. It is slated to be released to faculty in late February 2026.****

De It is required when making a submission that you consult your department’s representative to the CALS CC. A list of current members can be found on the committee site located at:
<https://cals.ufl.edu/faculty-staff/committees/>.

N/A Submission of a course modification requires both the current version of the course syllabus and the proposed version.

N/A Joint course submissions must include 1) both graduate and undergraduate syllabuses and 2) a separate document outlining the substantial (more than one) differences in assignments between the two courses. These assignments must account for at least a 15% difference in graded material between the two levels. If this is a new course submission both courses must be submitted for approval simultaneously.

De The course description on the UCC form and in the syllabus must match and should be no longer than 500 characters. **FOR AN EXISTING COURSE, THE DESCRIPTION MUST MATCH THE CATALOG DESCRIPTION**. Follow the [COURSE DESCRIPTION GUIDELINES](#) for new courses if not contraindicated by outside certification requirements. Any other information you wish to include needs to be under a different heading such as background or additional course information.

see note

De The course learning objectives must be consistent with Bloom's taxonomy. Please see the following link at the CALS Curriculum site. (https://cals.ufl.edu/content/PDF/Faculty_Staff/cals-courseobjectives.pdf). Do not use the words demonstrate or understand when listing learning objectives.

De The course schedule should be concise and include the appropriate number of weeks in the semester.

De All graduate course submissions must include a reading list if a textbook is not required. The reading list should include at least some current readings (within the last 5 years). All readings do not need to be current.

N/A Outside consultations are required if there is a possibility of the proposed course covering a significant amount of material taught in another department or college on campus. There must be a consult form completed by the chair of the department from who you are seeking the consult. Instructors may provide additional consults. The form can be found at: <https://approval.ufl.edu/policies/external-consultations/>.

N/A Prerequisite courses are required for 3000 and 4000 level courses. This line of the approval form cannot be "none" or left blank. Junior or senior standing is an acceptable option. A phrase such as "a course in basic biology" is not acceptable. (Graduate courses should not have specific courses listed as prerequisites. If needed a statement of skills required prior to taking the course can be provided under other course information.)

De Decimal points must be included in the grading scale if grade cut-offs are based on percentages. While this is not a university policy it is a CALS standard practice to avoid any confusion when final grades for the course are determined.

De The attendance and make-up policy in a syllabus cannot contradict the university's policy. Do not include any additional wording to this policy. A statement and link regarding this are included in the CALS Syllabus Statements. For the approval process the college suggests a less is more view when it comes to this policy.

De The most recent version of the UF Syllabus Statements. Using the accessible syllabus template will ensure you have the most up to date statements. Do not use boilerplate statements from an old syllabus as they are likely to be out of date.

Certificates

If proposing a new undergraduate or graduate level certificate that includes any courses outside of the submitters department a statement regarding any possible impact on those courses needs to be included. An email from the instructor is acceptable. Also, any courses required for the certificate must have permanent prefixes and course numbers. The submission must include intended catalog copy. (Contact Dr. Anne Mathews (anne.mathews@ufl.edu) for further instruction)

EVR6905 Individual Work in Ecology and Environment

Fall 2026 - Class# XXXXX

1-6 credits (repeatable up to a maximum of 12 credits)

Course Coordinator: K. Ramesh Reddy

Director, School of Natural Resources and Environment

Office Location: 2035 McCarty D

Email: krr@ufl.edu

Drop-in Office Hours: TBD, or by appointment

Faculty Mentor: TBD

Instructor's Academic Rank

Office Location: TBD

Email: TBD

Drop-in Office Hours: TBD, or by appointment

Course Description

Faculty-guided individual research or study of material not covered in formal courses. The number of credit hours will vary based on the scope of the student's work.

Credits

Variable (1-6 credit hours). The appropriate number of credits will be determined in cooperation with SNRE's advising team and the faculty mentor, and will depend on the anticipated scope of the research. No more than eight credit hours of EVR6905 may count towards your graduate degree.

Course Prerequisites

Instructor and course coordinator permission

Student Learning Outcomes

By the end of the course, you will be able to:

- Design and execute an individual work project that advances the student's knowledge about a relevant issue in interdisciplinary ecology.
- Evaluate and employ methodologies appropriate to the project.
- Communicate key findings or reflect on the work clearly and professionally in written and oral forms.
- Manage project scope and timelines to complete the work in a timely fashion, as agreed upon with the faculty mentor.

Textbooks, Learning Materials, and Supply Fees

The faculty mentor may choose to require readings pertinent to the research topic. This should be communicated to the student during the first week of the semester as part of the syllabus addendum.

Required Technology

Technology requirements match the SNRE requirements for the IEC-Online program:

- Access to a desktop computer or laptop.
- High-speed internet access.
- Video conferencing and other forms of communication may require the use of a webcam or microphone.
- Latest versions of multiple web browsers, such as Mozilla Firefox or Google Chrome. Canvas only supports the last two versions of any given web browser.
- Various software such as Microsoft 365, Antivirus, etc. Check out which software is available to you as a student through [UF's software licensing services](#).

Communication Guidelines

Course Communication

The preferred way to get in contact with your faculty mentor outside of office hours is via direct email from your official UF email account. You can expect a response within 24-48 hours on weekdays in most cases. Emails from outside providers, like Gmail, are not considered secure and will be deleted to protect student privacy. Note that it is against FERPA best practices for your faculty mentor to discuss grades through email.

Grading Policy

Course grading is consistent with [UF grading policies](#).

Grading is based on how well you apply learned material as outlined by assignment-specific rubrics provided by your faculty mentor and the student learning outcomes listed in the syllabus. Your grades assess the *quality* of the work submitted and are not an assessment of the quantity of effort invested.

To avoid losing points, you must verify that all assignments are successfully submitted by their deadline. Missing, corrupt, or incompatible files may result in grade penalties up to a score of zero for the assignment. **You are responsible for maintaining duplicate copies of all work submitted in this course until the end of the semester. Follow the 3-2-1 backup rule:** keep three copies of your files on at least two different types of media, with one kept off-site. In practice, that typically means a copy saved on your computer, a copy on a portable device (like a USB flash drive), and an online copy using OneDrive (free to UF students through Microsoft 365).

In case of a grading dispute, you should notify your mentor by email in a timely fashion. Please include an explanation of what aspect of your grade you disagree with.

Grading Scale

Grade	Percentage	Grade	Percentage
A	93.0-100%	C	73.0-76.9%
A-	90.0-92.9%	C-	70.0-72.9%
B+	87.0-89.9%	D+	67.0-69.9%
B	83.0-86.9%	D	63.0-66.9%
B-	80.0-82.9%	D-	60.0-62.9%
C+	77.0-79.9%	E	0.0-59.9%

Grade Components

The exact number, types, weights, and due dates of assessments will be determined by the faculty mentor by the end of the first week of the semester, guided by the number of credit hours the student is registered for. A syllabus addendum containing this information should be signed by both mentor and student by the end of the drop/add period. Typically, assessments include:

Work Proposal: Students will submit a proposal for the planned individual work to the faculty mentor, including research question(s), purpose, methods, timeline, scope, and required materials.

Progress Report(s): Students will submit one or more progress reports (depending on credit hours) to the faculty mentor. Reports will summarize progress since the last report, address any challenges encountered, and explain how mentor feedback was incorporated. Alternatively, progress updates may be provided through scheduled check-in meetings at the mentor's discretion.

Synthesis or Reflection Paper: Students will submit a paper highlighting key findings their work produced and/or reflect on their experiences. This paper should include all elements defined in the proposal. Additionally or alternatively, the supervisor may ask the student to showcase their findings in a poster or seminar-style presentation.

Key Dates (example)

Week	Assignment Due
1	Signed syllabus addendum
2	Work proposal
3	IRB submission (if required)
5	Progress Report 1
8	Progress Report 2
11	Progress Report 3
14	Research or Reflection Paper, Presentation (if required)

Course Alterations

Due to unforeseen circumstances or to enhance class learning opportunities, it may be necessary to alter the information given in this syllabus during the semester. Such changes are not unusual and should be expected. All changes to the syllabus and its addendum will be communicated to the student in a timely manner. It is your responsibility to keep up with any syllabus changes.

Technical Support

UF Computing Help Desk & Ticket Number: All technical issues require a UF Helpdesk Ticket Number. The UF Helpdesk is available 24 hours a day, 7 days a week. <https://helpdesk.ufl.edu/> | 352-392-4357

Course Policies

Office Hours and Check-in Meetings

The student and mentor are encouraged to schedule regular check-in meetings throughout the semester. Additionally, please take advantage of office hours to discuss any questions or concerns. If you cannot be present for the regularly scheduled office hours, you will be accommodated at an alternate time.

Paper Formatting and Submission Requirements

All assignments must include citations and references in APA 7th edition formatting unless your faculty mentor specified an alternative style guide in the syllabus addendum. If you use a reference list generator, its use must be acknowledged, and the generated references must be manually checked for correct formatting.

Late Work and Make-up Policy

You are responsible for turning assignments in on time unless an extension has been requested by email prior to the deadline. Technical difficulties are not generally an excuse; you should have contingency plans in case any such issues arise. Remember to use the 3-2-1 backup rule. For online storage, choose a cloud service that can be accessed from any device ([OneDrive](#) is free for UF students), and have a plan for internet outages (such as identifying a source for public Wi-Fi near you or using your cell phone as a Wi-Fi hotspot).

In case of documented illnesses or emergencies, arrangements for completing assignments should be made upon your return to class.

Academic Honesty and Plagiarism

This course adheres to the university's honor code, including policies on cheating and plagiarism. The School of Natural Resources and Environment expects its students to exhibit ethically and morally responsible behavior.

Many students are unaware of the seriousness of violating academic ethics. **CHEATING, WHETHER INTENTIONAL OR UNINTENTIONAL, IS A SERIOUS AND POTENTIALLY CAREER-ENDING FORM OF ACADEMIC MISCONDUCT.**

Copying and pasting from external sources without attribution is never okay in academia. Direct quotes are not commonly used in science writing; paraphrases accompanied by a proper in-text citation should be used instead. Inappropriate use of direct quotes may result in a loss of credit.

Artificial Intelligence (AI) Policy

Any proposed use of AI for this work must be reviewed and approved by the faculty mentor as part of the syllabus addendum.

Large language models (LLMs) and agentic AI can be useful tools to assist (but NOT replace) writers when brainstorming, spellchecking, and (to a limited extent) editing if used judiciously, transparently, and with the knowledge that LLM outputs are subject to faulty reasoning and made-up (hallucinated) information. Students should be cognizant that LLMs like ChatGPT, Gemini, Claude, Llama, and similar models are not considered academically credible sources and must not be treated as such. They are also ill-suited for finding scholarly sources and generally do a poor job at formatting reference lists.

All work submitted for credit in this class must be entirely your own. Using LLMs to generate any content for you, including but not limited to copying & pasting LLM outputs in whole or part into work submitted for this class (even if you subsequently edit or paraphrase the AI output), **constitutes academic dishonesty**. You may not use AI to substitute for applying your knowledge and critical thinking on writing assignments.

If you use any AI for **any part of an assignment** (including brainstorming ideas or editing), you **must** state so as part of your submission and include the entire prompt(s) that you used (below your list of references); failure to do so will be considered academic dishonesty. If in doubt whether a particular AI use violates this course's policy, ask first! You will be fully responsible for any errors caused by using AI-provided information, and **any unsanctioned AI use will be referred to the Dean of Students' Student Conduct & Conflict Resolution office for adjudication**.

Further, many websites, online services, and software packages (e.g., Grammarly, Canva, many word processors) now feature both low-level assistive and high-level generative AI integrations. These policies apply to these services in the same way that they do for LLMs. It is your responsibility to determine if any tools you use contain generative AI components, and if so, disclose use of that AI. AI-generated images may not be used unless expressly approved in writing by your faculty mentor for a specific assignment.

Academic Policies and Resources

Academic policies for this course are consistent with university policies. See <https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>

Campus Health and Wellness Resources

Visit <https://one.uf.edu/whole-gator/topics> for resources that are designed to help you thrive physically, mentally, and emotionally at UF. Please contact [UMatterWeCare](#) for additional and immediate support.

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.

Privacy and Accessibility Policies

- Instructure (Canvas)
 - [Instructure Privacy Policy](#)
 - [Instructure Accessibility](#)
- Google Docs
 - [Google Docs Privacy Policy](#)
 - [Google Docs Accessibility](#)
- Zoom
 - [Zoom Privacy Policy](#)
 - [Zoom Accessibility](#)
 -

The submitter acknowledges that the submitted syllabus does not meet accessibility guidelines. It will be entered into Simple Syllabus once that system becomes available for proposed courses.

Cover Sheet: Request 22804

EVR6910 Supervised Research in Ecology and Environment

Info

Process	Course New Grad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Danny Coenen dcoenen@ufl.edu
Created	4/8/2026 10:28:06 AM
Updated	4/21/2026 12:47:39 PM
Description of request	SNRE is requesting the creation of a 6910 course for supervised research.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Interdisciplinary Ecology	Konda Reddy		4/13/2026
Note on syllabus accessibility.docx					4/8/2026
CALS CC Checklist-7.pdf					4/8/2026
College	Pending	CALS - College of Agricultural and Life Sciences			4/13/2026
No document changes					
Graduate Curriculum Committee					
No document changes					
University Curriculum Committee Notified					
No document changes					
Statewide Course Numbering System					
No document changes					
Graduate School Notified					
No document changes					
Office of the Registrar					
No document changes					
College Notified					
No document changes					

Course|New for request 22804

Info

Request: EVR6910 Supervised Research in Ecology and Environment

Description of request: SNRE is requesting the creation of a 6910 course for supervised research.

Submitter: Danny Coenen dcoenen@ufl.edu

Created: 4/15/2026 11:36:42 AM

Form version: 6

Responses

Recommended Prefix EVR

Course Level 6

Course Number 910

Lab Code None

Course Title Supervised Research in Ecology and Environment

Transcript Title Superv Resrch in Ecology & Env

Delivery Method PC - Primarily Classroom (0-49% of course content taught outside of classroom)

Effective Term Earliest Available

Effective Year Earliest Available

Rotating Topic No

Repeatable Credit? Yes

Multiple Offerings in a Single Semester No

If repeatable, # total repeatable credit allowed 8

Amount of Credit Variable

If variable, # min 1

If variable, # max 6

S/U Only? Yes

Contact Type Supervision of Teaching/Research

Course Type Supervised Research (6910)

Weekly Contact Hours Variable, depending on the number of credits a student registers for.

Course Description Students complete a primary or secondary research project under faculty guidance. Equips students with the practical skills necessary to plan, implement, and analyze a research project. The number of credit hours will vary based on the scope of the student's research.

Prerequisites N/A

Co-requisites N/A

Rationale for Placement in the Curriculum SNRE does not currently have a 6910 course code. This course will be used by students in the Interdisciplinary Ecology Master's and Ph.D. program to earn credit for supervised research ancillary to or independent of their non-thesis project, thesis, or dissertation.

Syllabus Content Requirements All Items Included

CALS Curriculum Committee

Submission Checklist

Updated January 2026

NOTE: This checklist must be included with all course and certificate submissions.

The checklist below is intended to facilitate course and certificate submissions to the University of Florida Academic Approval Tracking System (<https://approval.ufl.edu/>). The checklist consists of the most common items that can cause a submission to require changes or be recycled. Contrary to information provided on the UF approval site, the CALS Curriculum Committee requires a syllabus be submitted with each new course or course modification request. Please note that submitters are encouraged to attend the CALS CC meeting at which their item is being reviewed. This allows the submitter to answer any potential questions that may arise that could cause the item to not be approved. Also, be aware that when completing the UCC form the section Description of Request is asking for a brief statement about what you are doing. This is **not** the place for a course description. A statement such as “Proposal of a new undergraduate course” is all that is needed. Please do not submit documents in pdf format. All documents should be submitted in Word to facilitate editing on our end if necessary.

CHECKLIST: PLEASE INITIAL OR MARK N/A FOR EACH STATEMENT TO INDICATE YOUR COMPLIANCE.

SYLLABUS: You are encouraged to use the CALS ACCESSIBLE SYLLABUS TEMPLATE.

Accessibility will be required by APRIL 2026.

****Use of Simple Syllabus will be required for Summer 2026 forward. It is slated to be released to faculty in late February 2026.****

De It is required when making a submission that you consult your department’s representative to the CALS CC. A list of current members can be found on the committee site located at: <https://cals.ufl.edu/faculty-staff/committees/>.

N/A Submission of a course modification requires both the current version of the course syllabus and the proposed version.

N/A Joint course submissions must include 1) both graduate and undergraduate syllabuses and 2) a separate document outlining the substantial (more than one) differences in assignments between the two courses. These assignments must account for at least a 15% difference in graded material between the two levels. If this is a new course submission both courses must be submitted for approval simultaneously.

De The course description on the UCC form and in the syllabus must match and should be no longer than 500 characters. **FOR AN EXISTING COURSE, THE DESCRIPTION MUST MATCH THE CATALOG DESCRIPTION**. Follow the [COURSE DESCRIPTION GUIDELINES](#) for new courses if not contraindicated by outside certification requirements. Any other information you wish to include needs to be under a different heading such as background or additional course information.

see note

De The course learning objectives must be consistent with Bloom's taxonomy. Please see the following link at the CALS Curriculum site. (https://cals.ufl.edu/content/PDF/Faculty_Staff/cals-courseobjectives.pdf). Do not use the words demonstrate or understand when listing learning objectives.

De The course schedule should be concise and include the appropriate number of weeks in the semester.

De All graduate course submissions must include a reading list if a textbook is not required. The reading list should include at least some current readings (within the last 5 years). All readings do not need to be current.

N/A Outside consultations are required if there is a possibility of the proposed course covering a significant amount of material taught in another department or college on campus. There must be a consult form completed by the chair of the department from who you are seeking the consult. Instructors may provide additional consults. The form can be found at: <https://approval.ufl.edu/policies/external-consultations/>.

N/A Prerequisite courses are required for 3000 and 4000 level courses. This line of the approval form cannot be "none" or left blank. Junior or senior standing is an acceptable option. A phrase such as "a course in basic biology" is not acceptable. (Graduate courses should not have specific courses listed as prerequisites. If needed a statement of skills required prior to taking the course can be provided under other course information.)

De Decimal points must be included in the grading scale if grade cut-offs are based on percentages. While this is not a university policy it is a CALS standard practice to avoid any confusion when final grades for the course are determined.

De The attendance and make-up policy in a syllabus cannot contradict the university's policy. Do not include any additional wording to this policy. A statement and link regarding this are included in the CALS Syllabus Statements. For the approval process the college suggests a less is more view when it comes to this policy.

De The most recent version of the UF Syllabus Statements. Using the accessible syllabus template will ensure you have the most up to date statements. Do not use boilerplate statements from an old syllabus as they are likely to be out of date.

Certificates

If proposing a new undergraduate or graduate level certificate that includes any courses outside of the submitters department a statement regarding any possible impact on those courses needs to be included. An email from the instructor is acceptable. Also, any courses required for the certificate must have permanent prefixes and course numbers. The submission must include intended catalog copy. (Contact Dr. Anne Mathews (anne.mathews@ufl.edu) for further instruction)

EVR6910 Supervised Research in Ecology and Environment

Fall 2026 - Class# XXXXX

1-6 credits (repeatable up to a maximum of 8 credits)

Course Coordinator: K. Ramesh Reddy

Director, School of Natural Resources and Environment

Office Location: 2035 McCarty D

Email: krr@ufl.edu

Drop-in Office Hours: TBD, or by appointment

Faculty Mentor: TBD

Instructor's Academic Rank

Office Location: TBD

Email: TBD

Drop-in Office Hours: TBD, or by appointment

Course Description

Students complete a primary or secondary research project under faculty guidance. Equips students with the practical skills necessary to plan, implement, and analyze a research project. The number of credit hours will vary based on the scope of the student's research.

Credits

Variable (1-6 credit hours). The appropriate number of credits will be determined in cooperation with SNRE's advising team and the faculty mentor, and will depend on the anticipated scope of the research. No more than eight credit hours of EVR6910 may count towards your graduate degree.

Course Prerequisites

Instructor and course coordinator permission

Student Learning Outcomes

By the end of the course, you will be able to:

- Design and execute an independent research project that addresses a relevant issue in interdisciplinary ecology.
- Evaluate and employ research methodologies appropriate to the project.
- Apply theoretical and practical knowledge through supervised research.
- Collaborate effectively with a faculty mentor to refine research.
- Communicate research findings clearly and professionally in written and oral formats suitable for academic and stakeholder audiences.
- Manage project scope and timelines to complete the research in a timely fashion, as agreed upon with the faculty mentor.

Textbooks, Learning Materials, and Supply Fees

The faculty mentor may choose to require readings pertinent to the research topic. This should be communicated to the student during the first week of the semester as part of the syllabus addendum.

Required Technology

Technology requirements match the SNRE requirements for the IEC-Online program:

- Access to a desktop computer or laptop.
- High-speed internet access.
- Video conferencing and other forms of communication may require the use of a webcam or microphone.
- Latest versions of multiple web browsers, such as Mozilla Firefox or Google Chrome. Canvas only supports the last two versions of any given web browser.
- Various software such as Microsoft 365, Antivirus, etc. Check out which software is available to you as a student through [UF's software licensing services](#).

Communication Guidelines

Course Communication

The preferred way to get in touch with your faculty mentor outside of office hours is via direct email from your official UF email account. You can expect a response within 24-48 hours on weekdays in most cases. Emails from outside providers, like Gmail, are not considered secure and will be deleted to protect student privacy. Note that it is against FERPA best practices for your faculty mentor to discuss grades through email.

Grading Policy

Course grading is consistent with [UF grading policies](#).

Grading is based on how well you apply learned material as outlined by assignment-specific rubrics provided by your faculty mentor and the student learning outcomes listed in the syllabus. Your grades assess the *quality* of the work submitted and are not an assessment of the quantity of effort invested.

To avoid losing points, you must verify that all assignments are successfully submitted by their deadline. Missing, corrupt, or incompatible files may result in grade penalties up to a score of zero for the assignment. **You are responsible for maintaining duplicate copies of all work submitted in this course until the end of the semester. Follow the 3-2-1 backup rule:** keep three copies of your files on at least two different types of media, with one kept off-site. In practice, that typically means a copy saved on your computer, a copy on a portable device (like a USB flash drive), and an online copy using OneDrive (free to UF students through Microsoft 365).

In case of a grading dispute, you should notify your mentor by email in a timely fashion. Please include an explanation of what aspect of your grade you disagree with.

Grading Scale

Course Grading Scale: Satisfactory / Unsatisfactory

Satisfactory (S):

- The student successfully completes an independent research project that meets the agreed-upon scope and standards set by the faculty mentor.
- Applies appropriate research methodology
- Submits all required components (e.g., proposal, progress reports, final paper/presentation) on time and in acceptable academic format.
- Shows evidence of critical thinking, scholarly rigor, and professional communication throughout the project.
- Engages consistently with the faculty mentor and responds constructively to feedback.

Unsatisfactory (U):

- The student fails to complete the research project or does not meet the minimum standards agreed upon with the faculty mentor.
- Work has significant gaps in methodology, analysis, or application to the field of interdisciplinary ecology.
- Misses deadlines or submits incomplete or poorly formatted components.
- Displays lack of engagement or responsiveness to supervisory guidance.

Grade Components

The exact number, types, weights, and due dates of assessments will be determined by the faculty mentor by the end of the first week of the semester, guided by the number of credit hours the student is registered for. A syllabus addendum containing this information should be signed by both mentor and student by the end of the drop/add period. Typically, assessments include:

Research Proposal: Students will submit a research proposal to the faculty mentor, including research question(s), purpose, methods, timeline, scope, and required materials.

Research Progress Report(s): Students will submit one or more progress reports (depending on credit hours) to the faculty mentor. Reports will summarize progress since the last report, address any challenges encountered, and explain how mentor feedback was incorporated. Alternatively, updates on research progress may be provided through scheduled check-in meetings at the mentor's discretion.

Research Paper: Students will submit a write-up of the research conducted, including all elements defined in the proposal. This write-up should be of professional quality, suitable for publication in a peer-reviewed journal.

Research Presentation: Students will create a poster or oral presentation highlighting key findings of the research.

Key Dates (example)

Week	Assignment Due
1	Signed syllabus addendum
2	Research proposal
3	IRB submission (if required)
5	Progress Report 1
8	Progress Report 2
11	Progress Report 3
14	Research Paper, Presentation (if required)

Course Alterations

Due to unforeseen circumstances or to enhance class learning opportunities, it may be necessary to alter the information given in this syllabus during the semester. Such changes are not unusual and should be expected. All changes to the syllabus and its addendum will be communicated to the student in a timely manner. It is your responsibility to keep up with any syllabus changes.

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Course Policies

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The student and mentor are encouraged to schedule regular check-in meetings throughout the semester. Additionally, please take advantage of office hours to discuss any questions or concerns. If you cannot be present for the regularly scheduled office hours, you will be accommodated at an alternate time.

Paper Formatting and Submission Requirements

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Academic Policies and Resources

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Campus Health and Wellness Resources

Visit <https://one.ufl.edu/whole-gator/topics> for resources that are designed to help you thrive physically, mentally, and emotionally at UF. Please contact [UMatterWeCare](#) for additional and immediate support.

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Privacy and Accessibility Policies

- Instructure (Canvas)
 - [Instructure Privacy Policy](#)
 - [Instructure Accessibility](#)
- Google Docs
 - [Google Docs Privacy Policy](#)
 - [Google Docs Accessibility](#)
- Zoom
 - [Zoom Privacy Policy](#)
 - [Zoom Accessibility](#)

The submitter acknowledges that the submitted syllabus does not meet accessibility guidelines. It will be entered into Simple Syllabus once that system becomes available for proposed courses.

Cover Sheet: Request 22808

EVR6912 Non-thesis Project in Ecology and Environment

Info

Process	Course New Grad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Danny Coenen dcoenen@ufl.edu
Created	4/9/2026 9:08:04 AM
Updated	4/21/2026 12:43:24 PM
Description of request	SNRE is requesting the creation of a 6912 course for supervised non-thesis research.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Interdisciplinary Ecology	Konda Reddy		4/9/2026
CALS CC Checklist-7-2.pdf					4/9/2026
Note on syllabus accessibility.docx					4/9/2026
College	Pending	CALS - College of Agricultural and Life Sciences			4/9/2026
No document changes					
Graduate Curriculum Committee					
No document changes					
University Curriculum Committee Notified					
No document changes					
Statewide Course Numbering System					
No document changes					
Graduate School Notified					
No document changes					
Office of the Registrar					
No document changes					
College Notified					
No document changes					

Course|New for request 22808

Info

Request: EVR6912 Non-thesis Project in Ecology and Environment

Description of request: SNRE is requesting the creation of a 6912 course for supervised non-thesis research.

Submitter: Danny Coenen dcoenen@ufl.edu

Created: 4/15/2026 12:13:55 PM

Form version: 5

Responses

Recommended Prefix EVR

Course Level 6

Course Number 912

Lab Code None

Course Title Nonthesis Project in Ecology and Environment

Transcript Title Nonthesis Proj in Ecol & Env

Delivery Method PC - Primarily Classroom (0-49% of course content taught outside of classroom)

Effective Term Earliest Available

Effective Year Earliest Available

Rotating Topic No

Repeatable Credit? Yes

Multiple Offerings in a Single Semester No

If repeatable, # total repeatable credit allowed 6

Amount of Credit Variable

If variable, # min 1

If variable, # max 3

S/U Only? No

Contact Type Supervision of Teaching/Research

Course Type Independent Study

Weekly Contact Hours Variable, depending on the number of credits a student registers for.

Course Description Non-thesis students complete a research project under faculty guidance. Equips students with the practical skills necessary to plan, implement, and analyze a research project. The number of credit hours will vary based on the scope of the student's research.

Prerequisites N/A

Co-requisites N/A

Rationale for Placement in the Curriculum SNRE does not currently have a research course code for non-thesis M.S. students. This course will be used by students in the non-thesis Interdisciplinary Ecology Master's program to earn credit for supervised research for their final project. Non-thesis research course codes exist in various programs, including AEC and some engineering departments.

Syllabus Content Requirements All Items Included

CALS Curriculum Committee

Submission Checklist

Updated January 2026

NOTE: This checklist must be included with all course and certificate submissions.

The checklist below is intended to facilitate course and certificate submissions to the University of Florida Academic Approval Tracking System (<https://approval.ufl.edu/>). The checklist consists of the most common items that can cause a submission to require changes or be recycled. Contrary to information provided on the UF approval site, the CALS Curriculum Committee requires a syllabus be submitted with each new course or course modification request. Please note that submitters are encouraged to attend the CALS CC meeting at which their item is being reviewed. This allows the submitter to answer any potential questions that may arise that could cause the item to not be approved. Also, be aware that when completing the UCC form the section Description of Request is asking for a brief statement about what you are doing. This is **not** the place for a course description. A statement such as “Proposal of a new undergraduate course” is all that is needed. Please do not submit documents in pdf format. All documents should be submitted in Word to facilitate editing on our end if necessary.

CHECKLIST: PLEASE INITIAL OR MARK N/A FOR EACH STATEMENT TO INDICATE YOUR COMPLIANCE.

SYLLABUS: You are encouraged to use the CALS ACCESSIBLE SYLLABUS TEMPLATE.

Accessibility will be required by APRIL 2026.

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N/A Submission of a course modification requires both the current version of the course syllabus and the proposed version.

N/A Joint course submissions must include 1) both graduate and undergraduate syllabuses and 2) a separate document outlining the substantial (more than one) differences in assignments between the two courses. These assignments must account for at least a 15% difference in graded material between the two levels. If this is a new course submission both courses must be submitted for approval simultaneously.

De The course description on the UCC form and in the syllabus must match and should be no longer than 500 characters. **FOR AN EXISTING COURSE, THE DESCRIPTION MUST MATCH THE CATALOG DESCRIPTION**. Follow the [COURSE DESCRIPTION GUIDELINES](#) for new courses if not contraindicated by outside certification requirements. Any other information you wish to include needs to be under a different heading such as background or additional course information.

see note

De The course learning objectives must be consistent with Bloom's taxonomy. Please see the following link at the CALS Curriculum site. (https://cals.ufl.edu/content/PDF/Faculty_Staff/cals-courseobjectives.pdf). Do not use the words demonstrate or understand when listing learning objectives.

De The course schedule should be concise and include the appropriate number of weeks in the semester.

De All graduate course submissions must include a reading list if a textbook is not required. The reading list should include at least some current readings (within the last 5 years). All readings do not need to be current.

N/A Outside consultations are required if there is a possibility of the proposed course covering a significant amount of material taught in another department or college on campus. There must be a consult form completed by the chair of the department from who you are seeking the consult. Instructors may provide additional consults. The form can be found at: <https://approval.ufl.edu/policies/external-consultations/>.

N/A Prerequisite courses are required for 3000 and 4000 level courses. This line of the approval form cannot be "none" or left blank. Junior or senior standing is an acceptable option. A phrase such as "a course in basic biology" is not acceptable. (Graduate courses should not have specific courses listed as prerequisites. If needed a statement of skills required prior to taking the course can be provided under other course information.)

De Decimal points must be included in the grading scale if grade cut-offs are based on percentages. While this is not a university policy it is a CALS standard practice to avoid any confusion when final grades for the course are determined.

De The attendance and make-up policy in a syllabus cannot contradict the university's policy. Do not include any additional wording to this policy. A statement and link regarding this are included in the CALS Syllabus Statements. For the approval process the college suggests a less is more view when it comes to this policy.

De The most recent version of the UF Syllabus Statements. Using the accessible syllabus template will ensure you have the most up to date statements. Do not use boilerplate statements from an old syllabus as they are likely to be out of date.

Certificates

If proposing a new undergraduate or graduate level certificate that includes any courses outside of the submitters department a statement regarding any possible impact on those courses needs to be included. An email from the instructor is acceptable. Also, any courses required for the certificate must have permanent prefixes and course numbers. The submission must include intended catalog copy. (Contact Dr. Anne Mathews (anne.mathews@ufl.edu) for further instruction)

EVR6912 Non-thesis Project in Ecology and Environment

Fall 2026 - Class# XXXXX

1-3 credits (repeatable up to a maximum of 6 credits)

Course Coordinator: K. Ramesh Reddy

Director, School of Natural Resources and Environment

Office Location: 2035 McCarty D

Email: krr@ufl.edu

Drop-in Office Hours: TBD, or by appointment

Faculty Mentor: TBD

Instructor's Academic Rank

Office Location: TBD

Email: TBD

Drop-in Office Hours: TBD, or by appointment

Course Description

Non-thesis students complete a research project under faculty guidance. Equips students with the practical skills necessary to plan, implement, and analyze a research project. The number of credit hours will vary based on the scope of the student's research.

Credits

Variable (1-3 credit hours). The appropriate number of credits will be determined in cooperation with SNRE's advising team and the faculty mentor, and will depend on the anticipated scope of the research. No more than six credit hours of EVR6905 may count towards your graduate degree.

Course Prerequisites

Instructor and course coordinator permission

Student Learning Outcomes

By the end of the course, you will be able to:

- Design and execute a research project that addresses a relevant issue in interdisciplinary ecology.
- Evaluate and employ research methodologies appropriate to the project.
- Apply theoretical and practical knowledge through supervised research.
- Collaborate effectively with a faculty mentor to refine research.
- Communicate research findings clearly and professionally in written and oral formats suitable for academic and stakeholder audiences.
- Manage project scope and timelines to complete the research in a timely fashion, as agreed upon with the faculty mentor.

Textbooks, Learning Materials, and Supply Fees

The faculty mentor may choose to require readings pertinent to the research topic. This should be communicated to the student during the first week of the semester as part of the syllabus addendum.

Required Technology

Technology requirements match the SNRE requirements for the IEC-Online program:

- Access to a desktop computer or laptop.
- High-speed internet access.
- Video conferencing and other forms of communication may require the use of a webcam or microphone.
- Latest versions of multiple web browsers, such as Mozilla Firefox or Google Chrome. Canvas only supports the last two versions of any given web browser.
- Various software such as Microsoft 365, Antivirus, etc. Check out which software is available to you as a student through [UF's software licensing services](#).

Communication Guidelines

Course Communication

The preferred way to get in contact with your faculty mentor outside of office hours is via direct email from your official UF email account. You can expect a response within 24-48 hours on weekdays in most cases. Emails from outside providers, like Gmail, are not considered secure and will be deleted to protect student privacy. Note that it is against FERPA best practices for your faculty mentor to discuss grades through email.

Grading Policy

Course grading is consistent with [UF grading policies](#).

Grading is based on how well you apply learned material as outlined by assignment-specific rubrics provided by your faculty mentor and the student learning outcomes listed in the syllabus. Your grades assess the *quality* of the work submitted and are not an assessment of the quantity of effort invested.

To avoid losing points, you must verify that all assignments are successfully submitted by their deadline. Missing, corrupt, or incompatible files may result in grade penalties up to a score of zero for the assignment. **You are responsible for maintaining duplicate copies of all work submitted in this course until the end of the semester. Follow the 3-2-1 backup rule:** keep three copies of your files on at least two different types of media, with one kept off-site. In practice, that typically means a copy saved on your computer, a copy on a portable device (like a USB flash drive), and an online copy using OneDrive (free to UF students through Microsoft 365).

In case of a grading dispute, you should notify your mentor by email in a timely fashion. Please include an explanation of what aspect of your grade you disagree with.

Grading Scale

Grade	Percentage	Grade	Percentage
A	93.0-100%	C	73.0-76.9%
A-	90.0-92.9%	C-	70.0-72.9%
B+	87.0-89.9%	D+	67.0-69.9%
B	83.0-86.9%	D	63.0-66.9%
B-	80.0-82.9%	D-	60.0-62.9%
C+	77.0-79.9%	E	0.0-59.9%

Grade Components

The exact number, types, weights, and due dates of assessments will be determined by the faculty mentor by the end of the first week of the semester, guided by the number of credit hours the student is registered for. A syllabus addendum containing this information should be signed by both mentor and student by the end of the drop/add period. Typically, assessments include:

Research Proposal: Students will submit a research proposal to the faculty mentor, including research question(s), purpose, methods, timeline, scope, and required materials.

Research Progress Report(s): Students will submit one or more progress reports (depending on credit hours) to the faculty mentor. Reports will summarize progress since the last report, address any challenges encountered, and explain how mentor feedback was incorporated. Alternatively, updates on research progress may be provided through scheduled check-in meetings at the mentor's discretion.

Research Paper: Students will submit a write-up of the research conducted, including all elements defined in the proposal. This write-up should be of professional quality, suitable for publication in a peer-reviewed journal.

Research Presentation: Students will create a poster or oral presentation highlighting key findings of the research.

Key Dates (example)

Week	Assignment Due
1	Signed syllabus addendum
2	Research proposal
3	IRB submission (if required)
5	Progress Report 1
8	Progress Report 2
11	Progress Report 3
14	Research Paper, Presentation

Course Alterations

Due to unforeseen circumstances or to enhance class learning opportunities, it may be necessary to alter the information given in this syllabus during the semester. Such changes are not unusual and should be expected. All changes to the syllabus and its addendum will be communicated to the student in a timely manner. It is your responsibility to keep up with any syllabus changes.

Technical Support

UF Computing Help Desk & Ticket Number: All technical issues require a UF Helpdesk Ticket Number. The UF Helpdesk is available 24 hours a day, 7 days a week. <https://helpdesk.ufl.edu/> | 352-392-4357

Course Policies

Office Hours and Check-in Meetings

The student and mentor are encouraged to schedule regular check-in meetings throughout the semester. Additionally, please take advantage of office hours to discuss any questions or concerns. If you cannot be present for the regularly scheduled office hours, you will be accommodated at an alternate time.

Paper Formatting and Submission Requirements

All assignments must include citations and references in APA 7th edition formatting unless your faculty mentor specified an alternative style guide in the syllabus addendum. If you use a reference list generator, its use must be acknowledged, and the generated references must be manually checked for correct formatting.

Late Work and Make-up Policy

You are responsible for turning assignments in on time unless an extension has been requested by email prior to the deadline. Technical difficulties are not generally an excuse; you should have contingency plans in case any such issues arise. Remember to use the 3-2-1 backup rule. For online storage, choose a cloud service that can be accessed from any device ([OneDrive](#) is free for UF students), and have a plan for internet outages (such as identifying a source for public Wi-Fi near you or using your cell phone as a Wi-Fi hotspot).

In case of documented illnesses or emergencies, arrangements for completing assignments should be made upon your return to class.

Academic Honesty and Plagiarism

This course adheres to the university's honor code, including policies on cheating and plagiarism. The School of Natural Resources and Environment expects its students to exhibit ethically and morally responsible behavior.

Many students are unaware of the seriousness of violating academic ethics. **CHEATING, WHETHER INTENTIONAL OR UNINTENTIONAL, IS A SERIOUS AND POTENTIALLY CAREER-ENDING FORM OF ACADEMIC MISCONDUCT.**

Copying and pasting from external sources without attribution is never okay in academia. Direct quotes are not commonly used in science writing; paraphrases accompanied by a proper in-text citation should be used instead. Inappropriate use of direct quotes may result in a loss of credit.

Artificial Intelligence (AI) Policy

Any proposed use of AI in the research process must be reviewed and approved by the faculty mentor as part of the syllabus addendum.

Large language models (LLMs) and agentic AI can be useful tools to assist (but NOT replace) writers when brainstorming, spellchecking, and (to a limited extent) editing if used judiciously, transparently, and with the knowledge that LLM outputs are subject to faulty reasoning and made-up (hallucinated) information. Students should be cognizant that LLMs like ChatGPT, Gemini, Claude, Llama, and similar models are not considered academically credible sources and must not be treated as such. They are also ill-suited for finding scholarly sources and generally do a poor job at formatting reference lists.

All work submitted for credit in this class must be entirely your own. Using LLMs to generate any content for you, including but not limited to copying & pasting LLM outputs in whole or part into work submitted for this class (even if you subsequently edit or paraphrase the AI output), **constitutes academic dishonesty**. You may not use AI to substitute for applying your knowledge and critical thinking on writing assignments.

If you use any AI for **any part of an assignment** (including brainstorming ideas or editing), you **must** state so as part of your submission and include the entire prompt(s) that you used (below your list of references); failure to do so will be considered academic dishonesty. If in doubt whether a particular AI use violates this course's policy, ask first! You will be fully responsible for any errors caused by using AI-provided information, and **any unsanctioned AI use will be referred to the Dean of Students' Student Conduct & Conflict Resolution office for adjudication**.

Further, many websites, online services, and software packages (e.g., Grammarly, Canva, many word processors) now feature both low-level assistive and high-level generative AI integrations. These policies apply to these services in the same way that they do for LLMs. It is your responsibility to determine if any tools you use contain generative AI components, and if so, disclose use of that AI. AI-generated images may not be used unless expressly approved in writing by your faculty mentor for a specific assignment.

Academic Policies and Resources

Academic policies for this course are consistent with university policies. See <https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>

Campus Health and Wellness Resources

Visit <https://one.uf.edu/whole-gator/topics> for resources that are designed to help you thrive physically, mentally, and emotionally at UF. Please contact [UMatterWeCare](#) for additional and immediate support.

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.

Privacy and Accessibility Policies

- Instructure (Canvas)
 - [Instructure Privacy Policy](#)
 - [Instructure Accessibility](#)
- Google Docs
 - [Google Docs Privacy Policy](#)
 - [Google Docs Accessibility](#)
- Zoom
 - [Zoom Privacy Policy](#)
 - [Zoom Accessibility](#)

The submitter acknowledges that the submitted syllabus does not meet accessibility guidelines. It will be entered into Simple Syllabus once that system becomes available for proposed courses.

Cover Sheet: Request 22485

PLS XXXX Plant Breeding Journal Colloquium

Info

Process	Course New Grad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Eliana Kampf elianak@ufl.edu
Created	1/27/2026 2:37:23 PM
Updated	4/21/2026 1:10:22 PM
Description of request	We are requesting the creation of a specific journal colloquium course for the Ph.D. degree offered by the UF/IFAS Plant Breeding Graduate Program.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Horticultural Sciences 60230000	Christopher Gunter		4/7/2026
CALS CC Checklist_PlantBreeding.pdf					4/7/2026
College	Pending	CALS - College of Agricultural and Life Sciences			4/7/2026
No document changes					
Graduate Curriculum Committee					
No document changes					
University Curriculum Committee Notified					
No document changes					
Statewide Course Numbering System					
No document changes					
Graduate School Notified					
No document changes					
Office of the Registrar					
No document changes					
College Notified					
No document changes					

Course|New for request 22485

Info

Request: PLS XXXX Plant Breeding Journal Colloquium

Description of request: We are requesting the creation of a specific journal colloquium course for the Ph.D. degree offered by the UF/IFAS Plant Breeding Graduate Program.

Submitter: Eliana Kampf elianak@ufl.edu

Created: 4/21/2026 1:11:33 PM

Form version: 7

Responses

Recommended Prefix PLS

Course Level 6

Course Number XXX

Lab Code None

Category of Instruction Intermediate

Course Title Plant Breeding Journal Colloquium

Transcript Title Plant Breed Journal Colloquium

Degree Type Graduate

Delivery Method(s) On-Campus, Off-Campus, Online

Co-Listing No

Effective Term Earliest Available

Effective Year Earliest Available

Rotating Topic? Yes

Repeatable Credit? Yes

Multiple Offerings in a Single Semester Yes

If repeatable, # total repeatable credit allowed 6

Amount of Credit 1

S/U Only? No

Contact Type Regularly Scheduled

Course Type Lecture

Weekly Contact Hours 1

Course Description This course emphasizes critical analysis and discussion of primary plant breeding literature, including student-led presentations and evaluation of research methodologies, findings, and significance. Emphasis on developing skills in scientific communication, peer review, and interpretation of current research.

Prerequisites None.

Co-requisites N/A

Rationale and Placement in Curriculum Since the inception of the program (fall 2021), students must take at least 4 journal colloquium topics during their doctoral studies. Faculty in our program don't have the option of offering a plant breeding journal colloquium via the Plant Breeding Graduate Program because our Ph.D. degree program doesn't have such a course. Faculty must instead offer the journal colloquium via their home department. The program often needs to 'borrow' courses such as HOS 6942 Special Topics and PCB 7922 Journal Colloquium in PMCB that don't accurately reflect the knowledge and skills our students gain in these plant breeding specific journal colloquia courses. Our curriculum already has a place for this course but we lack the proper course number and title in the Graduate Catalog.

Course Objectives Upon successful completion of this course, students will be able to:

- Analyze and evaluate primary literature to identify key findings, methodologies, and research gaps.
- Evaluate scientific manuscripts through structured peer review, providing constructive and evidence-based feedback.
- Communicate and disseminate research effectively in written, oral, and collaborative

professional contexts.

Course Textbook(s) and/or Other Assigned Reading No textbooks are required for this course. This course is based on peer-reviewed publications from the current scientific literature that will be provided by the instructor. The required reading material will be posted in advance in Canvas. Examples of peer-reviewed publications:

1. Bernardo, R. (2020). Reinventing quantitative genetics for plant breeding: something old, something new, something borrowed, something BLUE. *Heredity*, 125(6), 375-385.
2. Cooper, M., & Messina, C. D. (2023). Breeding crops for drought-affected environments and improved climate resilience. *The Plant Cell*, 35(1), 162-186.
3. Tuncel, A., Pan, C., Clem, J. S., Liu, D., & Qi, Y. (2025). CRISPR–Cas applications in agriculture and plant research. *Nature reviews Molecular cell biology*, 26(6), 419-441.
4. Rincent, R., Solin, J., Lorenzi, A., Nunes, L., Griveau, Y., Pirus, L., ... & Moreau, L. (2025). Using phenomic selection to predict hybrid values with NIR spectra measured on the parental lines: proof of concept on maize. *Theoretical and Applied Genetics*, 138(1), 28.
5. Farooq, Muhammad Amjad, Shang Gao, Muhammad Adeel Hassan, Zhangping Huang, Awais Rasheed, Sarah Hearne, Boddupalli Prasanna, Xinhai Li, and Huihui Li. "Artificial intelligence in plant breeding." *Trends in Genetics* 40, no. 10 (2024): 891-908.

Weekly Schedule of Topics The course includes assigned readings, lectures, individual paper presentations, group discussions, student presentations and/or other assignments as determined by the instructor.

Below is an example of a theoretical spring 2026 course:

8/25/26 - Course introduction and scheduling presentations

9/01/26 - Group discussion

9/08/26 - Student presentation

9/15/26 - Student presentation

9/22/26 - Student presentation

9/29/26 - Student presentation

10/06/26 - Student presentation

10/13/26 - Student presentation

10/20/26 - Student presentation

10/27/26 - Student presentation

11/03/26 - Student presentation

11/10/26 - Student presentation

11/17/26 - Student presentation

11/24/26 - No class (Thanksgiving break)

12/01/26 - Group discussion and course evaluation

Grading Scheme Students will be graded on their preparation and engagement in class discussions, the quality of their presentations and discussion leadership, and overall participation, with final grades determined by in-class presentations and participation. The course grade is split evenly: 50% for Presentation and Discussion Leadership (50 points) and 50% for Engagement, Preparation, and Participation (50 points). Presentations are evaluated on mastery of the material (15 points), clarity and organization (10 points), critical analysis (10 points), discussion facilitation (10 points), and professionalism (5 points). Participation is assessed on attendance (10 points), preparation and completion of readings (10 points), quality of contributions (20 points), and respectful engagement (10 points). Instructors may incorporate additional topic-specific criteria based on their journal colloquium topic (e.g., written reflections, discussion summaries, etc.) to support learning objectives but the overall grading structure will remain aligned with the components listed above.

Instructor(s) Since this is a rotating topic, instructors will be assigned from our faculty (40 faculty members) as they plan to offer a journal colloquium topic. Each faculty member in the program is required to teach a Journal Colloquium topic at least once every ten years.

Attendance & Make-up Yes

Accommodations Yes

UF Grading Policies for assigning Grade Points Yes

Course Evaluation Policy Yes

CALS Curriculum Committee

Submission Checklist

Updated January 2026

NOTE: This checklist must be included with all course and certificate submissions.

The checklist below is intended to facilitate course and certificate submissions to the University of Florida Academic Approval Tracking System (<https://approval.ufl.edu/>). The checklist consists of the most common items that can cause a submission to require changes or be recycled. Contrary to information provided on the UF approval site, the CALS Curriculum Committee requires a syllabus be submitted with each new course or course modification request. Please note that submitters are encouraged to attend the CALS CC meeting at which their item is being reviewed. This allows the submitter to answer any potential questions that may arise that could cause the item to not be approved. Also, be aware that when completing the UCC form the section Description of Request is asking for a brief statement about what you are doing. This is **not** the place for a course description. A statement such as “Proposal of a new undergraduate course” is all that is needed. Please do not submit documents in pdf format. All documents should be submitted in Word to facilitate editing on our end if necessary.

CHECKLIST: PLEASE INITIAL OR MARK N/A FOR EACH STATEMENT TO INDICATE YOUR COMPLIANCE.

SYLLABUS: You are encouraged to use the CALS ACCESSIBLE SYLLABUS TEMPLATE. Accessibility will be required by APRIL 2026.

****Use of Simple Syllabus will be required for Summer 2026 forward. It is slated to be released to faculty in late February 2026.****

__YES__ It is required when making a submission that you consult your department’s representative to the CALS CC. A list of current members can be found on the committee site located at: <https://cals.ufl.edu/faculty-staff/committees/>.

__N/A__ Submission of a course modification requires both the current version of the course syllabus and the proposed version.

__N/A__ Joint course submissions must include 1) both graduate and undergraduate syllabuses and 2) a separate document outlining the substantial (more than one) differences in assignments between the two courses. These assignments must account for at least a 15% difference in graded material between the two levels. If this is a new course submission both courses must be submitted for approval simultaneously.

__YES__ The course description on the UCC form and in the syllabus must match and should be no longer than 500 characters. FOR AN EXISTING COURSE, THE DESCRIPTION **MUST MATCH THE CATALOG DESCRIPTION**. Follow the [COURSE DESCRIPTION GUIDELINES](#) for new courses if not contraindicated by outside certification requirements. Any other information you wish to include needs to be under a different heading such as background or additional course information.

__YES__ The course learning objectives must be consistent with Bloom's taxonomy. Please see the following link at the CALS Curriculum site. (https://cals.ufl.edu/content/PDF/Faculty_Staff/cals-courseobjectives.pdf). Do not use the words demonstrate or understand when listing learning objectives.

__YES__ The course schedule should be concise and include the appropriate number of weeks in the semester.

__YES__ All graduate course submissions must include a reading list if a textbook is not required. The reading list should include at least some current readings (within the last 5 years). All readings do not need to be current.

__N/A__ Outside consultations are required if there is a possibility of the proposed course covering a significant amount of material taught in another department or college on campus. There must be a consult form completed by the chair of the department from who you are seeking the consult. Instructors may provide additional consults. The form can be found at: <https://approval.ufl.edu/policies/external-consultations/>.

__N/A__ Prerequisite courses are required for 3000 and 4000 level courses. This line of the approval form cannot be "none" or left blank. Junior or senior standing is an acceptable option. A phrase such as "a course in basic biology" is not acceptable. (Graduate courses should not have specific courses listed as prerequisites. If needed a statement of skills required prior to taking the course can be provided under other course information.)

__N/A__ Decimal points must be included in the grading scale if grade cut-offs are based on percentages. While this is not a university policy it is a CALS standard practice to avoid any confusion when final grades for the course are determined.

__N/A__ The attendance and make-up policy in a syllabus cannot contradict the university's policy. Do not include any additional wording to this policy. A statement and link regarding this are included in the CALS Syllabus Statements. For the approval process the college suggests a less is more view when it comes to this policy.

__N/A__ The most recent version of the UF Syllabus Statements. Using the accessible syllabus template will ensure you have the most up to date statements. Do not use boilerplate statements from an old syllabus as they are likely to be out of date.

Certificates

If proposing a new undergraduate or graduate level certificate that includes any courses outside of the submitters department a statement regarding any possible impact on those courses needs to be included. An email from the instructor is acceptable. Also, any courses required for the certificate must have permanent prefixes and course numbers. The submission must include intended catalog copy. (Contact Dr. Anne Mathews (anne.mathews@ufl.edu) for further instruction)

PLS 6XXX Plant Breeding Journal Colloquium

Term: Fall 2026

Credits: 1

Meeting Time: Tuesdays, Period 3 (9:35–10:25 AM)

Delivery Mode: Synchronous Hybrid

Location: P. Lyrene Blueberry Research Classroom (in-person) and via Zoom (online)

Instructor

Esteban Rios, Ph.D.

(352) 301-2244

estebanrios@ufl.edu

Office hours: Tuesdays, 10:30 am

Teaching Assistant

TBD

Course Description

Critical analysis and discussion of primary plant breeding literature, including student-led presentations and evaluation of research methodologies, findings, and significance. Emphasis on developing skills in scientific communication, peer review, and interpretation of current research.

Intended Audience

The course is designed for graduate students working in plant breeding.

Course Learning Objectives

Upon successful completion of this course, students will be able to:

- Analyze and evaluate primary literature to identify key findings, methodologies, and research gaps.
- Evaluate scientific manuscripts through structured peer review, providing constructive and evidence-based feedback.
- Communicate and disseminate research effectively in written, oral, and collaborative professional contexts.

Course Prerequisites

None.

Course Delivery Format

This course is delivered in a synchronous hybrid format, with class sessions held simultaneously in person and via Zoom. Students are expected to attend and participate during the scheduled class time in either format. All students are held to the same expectations for attendance, participation, and engagement regardless of modality.

Textbooks and Other Assigned Reading

No textbooks are required for this course. This course is based on peer-reviewed publications from the current scientific literature that will be provided by the instructor. The required reading material will be posted in advance in Canvas. Examples of peer-reviewed publications:

1. Bernardo, R. (2020). Reinventing quantitative genetics for plant breeding: something old, something new, something borrowed, something BLUE. *Heredity*, 125(6), 375-385.
2. Cooper, M., & Messina, C. D. (2023). Breeding crops for drought-affected environments and improved climate resilience. *The Plant Cell*, 35(1), 162-186.
3. Tuncel, A., Pan, C., Clem, J. S., Liu, D., & Qi, Y. (2025). CRISPR–Cas applications in agriculture and plant research. *Nature reviews Molecular cell biology*, 26(6), 419-441.
4. Rincent, R., Solin, J., Lorenzi, A., Nunes, L., Griveau, Y., Pirus, L., ... & Moreau, L. (2025). Using phenomic selection to predict hybrid values with NIR spectra measured on the parental lines: proof of concept on maize. *Theoretical and Applied Genetics*, 138(1), 28.
5. Farooq, Muhammad Amjad, Shang Gao, Muhammad Adeel Hassan, Zhangping Huang, Awais Rasheed, Sarah Hearne, Boddupalli Prasanna, Xinhai Li, and Huihui Li. (2024) Artificial intelligence in plant breeding. *Trends in Genetics* 40, no. 10: 891-908.

Communication Guidelines

Class resources, announcements, updates, and assignments will be available on Canvas. The preferred method of communication for this course is email. If you have questions before the next class meeting, please send them to the instructor via Canvas message and be sure to copy the teaching assistant. To meet with the instructor outside of office hours, please schedule an appointment.

Class Expectations

This course is designed as a student-driven, discussion-based learning experience, and active participation is essential to its success. Students are expected to fully engage in all class sessions and contribute meaningfully to discussions.

- **Attendance and Engagement:** Students are expected to attend all class meetings, arrive prepared, and remain for the full class period. Active and respectful participation in discussions is required.
- **Preparation:** Students must complete all assigned readings prior to class, particularly journal articles for discussion, to enable informed and substantive participation.
- **Discussion Leadership:** Each student will deliver a formal presentation summarizing the assigned research article and will facilitate a structured group discussion on key topics.
- **Participation as Assessment:** Participation is a graded component of this course and is essential for successful completion. Consistent, thoughtful contributions are expected throughout the semester. This includes contributing to peer discussions, asking questions, and engaging critically with course materials.

Technical Support

UF Computing Help Desk & Ticket Number: All technical issues require a UF Helpdesk Ticket Number. The UF Helpdesk is available 24 hours a day, 7 days a week. <https://helpdesk.ufl.edu/> | 352-392-4357

Weekly Course Schedule

Week	Topic	Assessment	Due Dates
Wk 1 8/25	Course introduction and scheduling presentations	Participation (attendance & initial engagement)	N/A
Wk 2 9/01	Group discussion	Engagement, Preparation, and Participation	Assigned readings completed prior to class
Wk 3 9/08	Student presentation	Presentation & Discussion Leadership (presenter); Participation (all students)	Presenter delivers presentation in class; all students complete readings before class
Wk 4 9/15	Student presentation	Presentation & Discussion Leadership (presenter); Participation (all students)	Presenter delivers presentation in class; all students complete readings before class
Wk 5 9/22	Student presentation	Presentation & Discussion Leadership (presenter); Participation (all students)	Presenter delivers presentation in class; all students complete readings before class
Wk 6 9/29	Student presentation	Presentation & Discussion Leadership (presenter); Participation (all students)	Presenter delivers presentation in class; all students complete readings before class
Wk 7 10/06	Student presentation	Presentation & Discussion Leadership (presenter); Participation (all students)	Presenter delivers presentation in class; all students complete readings before class
Wk 8 10/13	Student presentation	Presentation & Discussion Leadership (presenter); Participation (all students)	Presenter delivers presentation in class; all students complete readings before class
Wk 9 10/20	Student presentation	Presentation & Discussion Leadership (presenter); Participation (all students)	Presenter delivers presentation in class; all students complete readings before class
Wk 10 10/27	Student presentation	Presentation & Discussion Leadership (presenter); Participation (all students)	Presenter delivers presentation in class; all students complete readings before class
Wk 11 11/03	Student presentation	Presentation & Discussion Leadership (presenter); Participation (all students)	Presenter delivers presentation in class; all students complete readings before class
Wk 12 11/10	Student presentation	Presentation & Discussion Leadership (presenter); Participation (all students)	Presenter delivers presentation in class; all students complete readings before class
Wk 13 11/17	Student presentation	Presentation & Discussion Leadership (presenter); Participation (all students)	Presenter delivers presentation in class; all students complete readings before class
Wk 14 11/24	No class (Thanksgiving break)	N/A	N/A
Wk 14 12/01	Group discussion and course evaluation	Engagement, Participation, and Course Evaluation Completion	Attend class; complete course evaluation by end of class

Grading Policy

Course grading is consistent with [UF grading policies](#).

Course Grading Structure

Assignment Type	Point Value	Percent of Final Grade	Criteria
Presentation and Discussion Leadership	50	50%	Content Mastery (15 pts): Demonstrates clear understanding of research objectives, methods, results, and implications. Clarity & Organization (10 pts): Logical structure, clear visuals, and effective communication. Critical Analysis (10 pts): Evaluates strengths, limitations, and broader impacts. Discussion Facilitation (10 pts): Engages peers, asks thoughtful questions, and guides discussion. Professionalism (5 pts): Preparation, time management, and delivery.
Engagement, Preparation, and Participation	50	50%	Attendance & Presence (10 pts): Attends, arrives on time, and remains engaged. Preparation (10 pts): Completes readings and demonstrates readiness. Quality of Contributions (20 pts): Thoughtful, relevant, and critical engagement in discussions. Engagement (10 pts): Respectful interaction and contribution to a collaborative environment.
Total	100	100%	

Grading Scale

Grade	Points	Percentage
A	> 90	> 90%
B+	85 to ≤ 90	85–89%
B	80 to ≤ 85	80–84%
C+	75 to ≤ 80	75–79%
C	70 to ≤ 75	70–74%
D+	65 to ≤ 70	65–69%
D	60 to ≤ 65	60–64%
E	< 60	< 60%

Academic Policies and Resources

Academic policies for this course are consistent with university policies. See

<https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>

Campus Health and Wellness Resources

Visit <https://one.ufl.edu/whole-gator/topics> for resources that are designed to help you thrive physically, mentally, and emotionally at UF.

Please contact [UMatterWeCare](#) for additional and immediate support.

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.

Privacy and Accessibility Policies

- Instructure (Canvas)
 - [Instructure Privacy Policy](#)
 - [Instructure Accessibility](#)
- Zoom
 - [Zoom Privacy Policy](#)
 - [Zoom Accessibility](#)

Cover Sheet: Request 22718

FYC 6235: Prevention Science in YDFS AI designation

Info

Process	Course Add to Existinggrad AI
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Sarah Lynne sarahlynn@ufl.edu
Created	3/12/2026 4:38:39 PM
Updated	4/20/2026 3:21:32 PM
Description of request	I would like my graduate course FYC 6235: Prevention Science in YDFS to be considered for AI designation under the Enable AI theme.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Family, Youth and Community Sciences 60320000	Larry Forthun		3/13/2026
No document changes					
College	Pending	CALS - College of Agricultural and Life Sciences			3/13/2026
No document changes					
AI Curriculum Committee					
No document changes					
Graduate Curriculum Committee					
No document changes					
Office of the Registrar					
No document changes					
Graduate Catalog					
No document changes					
College Notified					
No document changes					

Existing AI Course (without changes) for request 22718

Info

Request: FYC 6235: Prevention Science in YDFS AI designation

Description of request: I would like my graduate course FYC 6235: Prevention Science in YDFS to be considered for AI designation under the Enable AI theme.

Submitter: Sarah Lynne sarahlynn@ufl.edu

Created: 4/20/2026 3:19:35 PM

Form version: 2

Responses

Canvas Availability Yes, I acknowledge this requirement.

Assessment Data Yes, I acknowledge this requirement.

Weekly Schedule and Assignments Yes, I acknowledge this requirement.

Course Prefix and Number FYC6235

Course Title Prevention Science in YDFS

Lab Code None

Delivery Method PC - Primarily Classroom (0-49% of course content taught outside of classroom)

Effective Term Spring

Effective Year 2027

Credit Hours 3

Prerequisites n/a

AI Percentile Designation This course contains greater than 10% and less than 50% AI-related content.

Requested AI Categories (10%-50%) Enable-AI: AI Enabled

SLO Statement Requirement I understand and agree to include the required statements in the course syllabus.

Rationale for the AI Category There is one week of this course that focuses on AI and Prevention Science. In addition, students utilize LLMs in the development of a final project for the class. This is less than 50% of the course content/activities which is why this falls in the AI-Enable category.

Course Description Explores the theoretical and empirical foundations for the science of prevention and its application to youth development and family science. Taking an ecological approach, this course will explore methods and processes for designing, delivering, and evaluating YDFS prevention programs and the implications for families, schools, and communities.

Course Objectives The primary goals of this course are to enhance students' knowledge about the multidisciplinary field of prevention science and to improve critical assessments of prevention science methods.

More specifically, students who successfully complete the course will be able to:

- Discuss theories and methods related to prevention science including developmental theories, intervention design, implementation, and dissemination;
- Identify risk and protective factors related to behavioral health and disparities in youth outcomes;
- Discuss some seminal studies in prevention science that intervene at different levels of the social-ecological system;
- Evaluate and critique contemporary empirical publications at the intersection of prevention science and AI;
- Utilize and critically evaluate for accuracy text generated by large language models as it relates to prevention science topics;
- Describe the role of team science in prevention research;
- Critically evaluate strategies for maximizing intervention effectiveness, implementation, dissemination, and sustainability.

Instructor(s) Sarah Lynne

Required Links and Policies Yes

Department of Family, Youth and Community Sciences
CALS/UF

FYC 6235: Prevention Science in YDFS
Spring 2027

Class Meetings:	Mondays 4 th – 6 th periods (10:40am – 1:40pm)
Class Location:	Matherly Hall, Room 0051
Credit Hours:	3 credits

Course Director:	Sarah D. Lynne, Ph.D.
Office Hours:	By appointment
Office:	3038B McCarty Hall D

Email:	sarahlynne@ufl.edu
Phone:	352-273-3546

COURSE DESCRIPTION

Explores the theoretical and empirical foundations for the science of prevention and its application to youth development and family science. Taking an ecological approach, this course will explore methods and processes for designing, delivering, and evaluating YDFS prevention programs and the implications for families, schools, and communities.

COURSE OBJECTIVES

The primary goals of this course are to enhance students' knowledge about the multidisciplinary field of prevention science and to improve critical assessments of prevention science methods.

More specifically, students who successfully complete the course will be able to:

- Discuss theories and methods related to prevention science including developmental theories, intervention design, implementation, and dissemination;
- Identify risk and protective factors related to behavioral health and disparities in youth outcomes;
- Discuss some seminal studies in prevention science that intervene at different levels of the social-ecological system;
- Evaluate and critique contemporary empirical publications at the intersection of prevention science and AI;
- Utilize and critically evaluate for accuracy text generated by large language models as it relates to prevention science topics;
- Describe the role of team science in prevention research;
- Critically evaluate strategies for maximizing intervention effectiveness, implementation, dissemination, and sustainability.

PREREQUISITES

None

AI CREDIT

Enable – AI

Support AI through related knowledge and skill development, such as programming or statistics. AI course content is 10 – 49%. *This course accomplishes the AI Designation objectives of the subject area listed above.*

COURSE PROCEDURE

Class time will be used for presentations, class discussion, and activities related to the application of course concepts. Each class session will have assigned readings that must be completed prior to class. Students are expected to come to each class prepared to participate in class discussions and activities centered around the required readings and topics.

STUDENT COURSE REQUIREMENTS

The following will be used to assess students' progress in achieving the course objectives:

- 1. Reaction Papers.** Short reports, no more than 2 pages, on the assigned readings will be required prior to the beginning of the class in which they are discussed. These reports are designed to help focus students' reading and to prepare for class discussions. Assignments should be uploaded to the course website prior to the start of class.
- 2. Attendance and Participation.** Each student is expected to be an active and regular participant in class discussions. Students should come to class prepared to discuss the strengths and weaknesses of the assigned readings as well as how the readings apply to their own research interests. Each student will serve as the discussion leader for one of the class periods. The discussion leader is expected to introduce/summarize readings of the week and initiate class discussion. This includes preparing questions to discuss based on the readings, participating in the discussion, facilitating the engagement of classmates, and engaging in active listening.
- 3. Prevention Science Research Proposal.** You will choose a social issue of interest to you and write a research proposal for grant funding to support a prevention-oriented study. Your proposed study should be a justifiable next step given the current evidence base on your social issue of interest. It can fall within any domain of the prevention science research cycle. Preparatory assignments related to this paper will utilize large language models, and critical evaluation of output. These preparatory assignments and the final proposal should be uploaded to the course website prior to the start of the class in which they are due.

EVALUATION AND GRADING

Assignments & Weekly Participation	%	Points
Reaction Papers 30 points each 8 papers total	24%	240
Attendance & Participation 10 points per class 13 classes total	13%	130
Discussion Leader	13%	130
Final Paper Preparatory Assignments 50 points each 3 assignments total	15%	150
Final Paper	35%	350
TOTAL	100%	1000

A	92.5-100
A-	89.5-92.4
B+	86.5-89.4
B	82.5-86.4
B-	79.5-82.4
C+	76.5-79.4
C	72.5-76.4
C-	69.5-72.4
D+	66.5-69.4
D	62.5-66.4
D-	59.5-62.4
E	<59.4

Any assignment turned in late will receive a 10-percentage point reduction in the final grade.

TEXTBOOK AND READINGS:

You do not need to purchase any textbooks for this course. All assigned readings can be accessed via the Course Canvas page as well as library databases (e.g., PsycInfo). Supplementary readings may be expanded beyond what is outlined in the syllabus.

Access to an APA style manual (7th Edition) is required for formatting course assignments.

COURSE AGENDA

The following agenda provides an outline for the structure of the course throughout the fall semester.

The instructor reserves the right to make modifications to this agenda including but not limited to adding/removing readings, changing topical focus, and changing assignment due dates.

Week	Major Topic	Required Readings	Assignments
1	Definition of Prevention Science	• SPR, 2011	
2	No Class [Holiday]		
3	Theoretical Frameworks in Prevention Science	• NCI Theory at a Glance, 2005 • Boyd et al., 2023	Reaction Paper 1
4	Social Determinants of Health	• Phelan et al., 2010 • Braveman et al., 2011 • Woolf et al., 2011 • Williams et al., 2008 • Viner et al., 2012	Preparatory Assignment 1
5	Standards of Evidence	• Gottfredson et al., 2015 • Biglan et al., 2015 • Crowley et al., 2018	Reaction Paper 2
6	Prevention Science: What works	• DPS Chp. 1 • DPS Chp. 12 • Komro, 2018 • Nation et al., 2003	Reaction Paper 3
7	Translation and Dissemination	• Carroll et al., 2007 • Fagan et al., 2019 • Leadbeater et al., 2018 • Blue Bird Jernigan et al., 2020	Preparatory Assignment 2
8	Adaptation and Sustainability	• Tibbits, 2015 • Wiltsey Stirman et al., 2012 • Mejia et al., 2017 • Barrera Jr. et al., 2017 • Bernal & Adames, 2017	Reaction Paper 4

9	Developmental Perspectives on Prevention	• NIDA, 2016 • AACAP, 2011 • RAND, 2017 • Kim et al., 2023 • Schwartz & Petrova, 2019 • Wilson et al., 2023 • Emerson et al., 2023	Reaction Paper 5
10	School and Family-based Prevention	• Doty et al., 2017 • Weist et al., 2024	Preparatory Assignment 3
11	Artificial Intelligence, Machine Learning, Predictive Analytics and Prevention Science	• Abdelmoteleb et al., 2024 • Rice & Young, 2025 • Ram et al., 2024 • Negriff et al., 2022 • Trinkley et al., 2024	Reaction Paper 6
12	Community-based Prevention	• Israel et al., 1998 • Minkler et al., 2012 • Fagan & Hawkins, 2015	Reaction Paper 7
13	Harm-Reduction Approaches and Policy as Intervention	• Bright et al., 2019 • Gregory et al., 2025 • Kelly et al., 2025 • Altaf et al., 2025	Reaction Paper 8
14	Ethics/Critiques of Prevention Science	• Pisani et al., 2016 • Biesta et al, 2007 • Birkeland et al., 2005 • Holder et al., 2009	Final Paper Due

COURSE POLICIES

Class Decorum

Please: (1) be on time, (2) respect others' points of view, (3) listen quietly when others are speaking, and (4) turn off cell phones, alarms, and other such distractions.

People learn best when they are encouraged to ask questions and express their diverse opinions on course content which may include images, texts, data, or theories from many fields. This is especially true in courses that deal with provocative or contemporary issues. UF offers many such courses, in which students encounter concepts of race, color, sex, and/or national origin. We teach these important issues because understanding them is essential for anyone who seeks to make economic, cultural, and societal contributions to today's complex world. With this in mind, we do not limit access to, or classroom discussion of, ideas and opinions-including those that some may find uncomfortable, unwelcome, disagreeable, or even offensive. In response to challenging material, students and instructors are encouraged to ask honest questions and thoughtfully engage one another's ideas. But hostility, disruptive and disrespectful behavior, and provocation for provocation's sake have no place in a classroom; reasonable people disagree reasonably. These guidelines can help instructors and students as they work together to fulfill the mission of the University of Florida, which includes the exploration of intellectual boundaries, the creation of new knowledge and the pursuit of new ideas.

Returned Assignments

Keep copies of all assignments that you submit and of all grades until you receive official notification of your final course grade.

Academic Policies & Resources

The following link provides up-to-date information on current academic policies and university-wide student resources: <https://go.ufl.edu/syllabuspolicies>

Reading List

1. Society of Prevention Research Core Competencies for Prevention Researchers, 2025
2. Theory at a Glance: A Guide for Health Promotion Practice, National Cancer Institute, U.S. Department of Health and Human Services, 2005
3. Boyd RC, Castro FG, Finigan-Carr N, Okamoto SK, Barlow A, Kim BE, Lambert S, Lloyd J, Zhang X, Barksdale CL, Crowley DM, Maldonado-Molina M, Obasi EM, & Kenney A (2023). Strategic directions in preventive intervention research to advance health equity. *Prevention Science* 24, 577-596.
4. Phelan JC, Link BG, & Tehranifar P (2010). Social conditions as fundamental causes of health inequalities: Theory, evidence, and policy implications. *Journal of Health and Social Behavior*, 51(S), S28-S40.
5. Braveman P, Egerter S, & Williams DR (2011). The social determinants of health: Coming of age. *Annual Review of Public Health*, 32, 381-398.
6. Woolf SH & Braveman P (2011). Where health disparities begin: The role of social and economic determinants and why current policies may make matters worse. *Health Affairs*, 30(10), 1852-1859.
7. Williams DR, Costa MV, Odunlami AO, & Mohammed SA (2008). Moving upstream: How interventions that address the social determinants of health can improve health and reduce disparities. *Journal of Public Health Management Practice*, 14(Suppl), S8-S17.
8. Viner RM, Ozer EM, Denny S, Marmot M, Resnick M, Fatusi A, & Currie C (2012). Adolescence and the social determinants of health. *Lancet*, 379, 1641-1652.
9. Gottfredson DC, Cook TD, Gardner FEM, Gorman-Smith D, Howe GW, Sandler IN, and Zafft KM (2015). Standards of evidence for efficacy, effectiveness, and scale-up research in prevention science: Next generation. *Prevention Science*. DOI 10.1007/s11121-015-0555-x
10. Biglan A, Flay BR, & Wagenaar AC (2015). Commentary on the 2015 SPR standards of evidence. *Prevention Science*, 16, 927-932. DOI 10.1007/s11121-015-0582-7
11. Crowley DM, Dodge KA, Barnett WS, Corso P, Duffy S, Graham P, Greenberg M, Haskins R, Hill L, Jones DE, Karoly LA, Kuklinski MR, & Plotnick R (2018). Standards of evidence for conducting and reporting economic evaluations in prevention science. *Prevention Science*, 19, 366-390.
12. Cordova D, Estrada Y, Malcolm S, Huang S, Brown CH, Pantin H, & Prado G. (2014). Prevention science: An epidemiological approach. In *Defining Prevention Science* (Z Sloboda and H Petras, Eds). Springer Science+Business Media: New York.
13. Rohrbach L (2014). Design of prevention interventions. In *Defining Prevention Science* (Z Sloboda and H Petras, Eds). Springer Science+Business Media: New York.
14. Komro KA (2018). 25 years of complex intervention trials: Reflections on lived and scientific experiences. *Research on Social Work Practice*, 28(5), 523-531.
15. Nation M, Crusto C, Wandersman A, Kumpfer KL, Seybolt D, Morrissey-Kane E, & Davino K (2003). What works in prevention: Principles of effective prevention programs. *American Psychologist*, 58, 449-456.
16. Carroll C, Patterson M, Wood S, Booth A, Rick J, & Balain S (2007). A conceptual framework

for implementation fidelity. *Implementation Science*, 2:40.

17. Fagan AA, Bumbarger BK, Barth RP, Bradshaw CP, Cooper BR, Supplee LH, & Klein Walker D (2019). Scaling up evidence-based interventions in US public systems to prevent behavioral health problems: Challenges and opportunities. *Prevention Science*, DOI: 10.1007/s11121-019-01048-8
18. Leadbeater BJ, Dishion T, Sandler I, Bradshaw CP, Dodge K, Gottfredson D, Graham PW, Lindstrom Johnson S, Maldonado-Molina MM, Mauricio AM, & Phillips Smith E (2018). Ethical challenges in promoting the implementation of preventive interventions: Report of the SPR task force. *Prevention Science*, 19, 853-865.
19. Blue Bird Jernigan V, D'Amico EJ, & Kaholokula JK (2020). Prevention research with indigenous communities to expedite dissemination and implementation efforts. *Prevention Science*, 21 (Suppl 1), S74-S82.
20. Tibbits MK (2015). Promoting the postfunding sustainability of evidence-based substance abuse interventions through research and practice. In *Handbook of Adolescent Drug Use Prevention: Research, Intervention Strategies, and Practice* (LM Scheier Ed.). American Psychological Association, Washington DC.
21. Wiltsey Stirman S, Kimberly J, Cook N, Calloway A, Castro F, & Charns M (2012). The sustainability of new programs and innovations: A review of the empirical literature and recommendations for future research. *Implementation Science*, 7:17.
22. Mejia A, Leijten P, Lachman JM, & Parra-Cardona JR (2017). Different strokes for different folks? Contrasting approaches to cultural adaptation of parenting interventions. *Prevention Science*, 18, 630-639.
23. Barrera Jr. M, Berkel C, & Gonzalez Castro F (2017). Directions for the advancement of culturally adapted preventive interventions: Local adaptations, engagement, and sustainability. *Prevention Science*, 18, 640-648.
24. Bernal G & Adames C (2017). Cultural adaptations: Conceptual, ethical, contextual, and methodological issues for working with ethnocultural and majority-world populations. *Prevention Science*, 18, 681-688.
25. National Institute on Drug Abuse; National Institutes of Health; U.S. Department of Health and Human Services (2016). *Principles of substance abuse prevention for early childhood: A research based guide*.
26. American Academy of Child & Adolescent Psychiatry (2011). *Cost effectiveness of prevention and early intervention*.
27. Cannon JS, Kilburn R, Karoly LA, Mattox T, Muchow AN, & Buenaventura M (2017). Decades of evidence demonstrate that early childhood programs can benefit children and provide economic returns. In *Investing early: Taking stock of outcomes and economic returns from early childhood programs*.
28. Kim JJ, Gonzales NA, Pina AA, & Graham PW (2023). The promise and challenges of promotive and preventive interventions in adolescence. In *APA Handbook of Adolescent and Young Adult Development* (LJ Crockett, G Carlo, and JE Schulenberg, Eds.). American Psychological Association.
29. Schwartz SJ & Petrova M (2019). Prevention science in emerging adulthood: A field coming of age. *Prevention Science*, 20, 305-309.
30. Wilson KL, Axelson S, Garney WR, Garcia KM, Suellentrop K, & Esquivel CH (2023). Addressing evaluation barriers with early innovation development for adolescent-focused sexual and reproductive health interventions. *Prevention Science*, 24 (Suppl 2), S222-S228.
31. Emerson A, Pickett M, Moore S, & Kelly PJ (2023). A scoping review of digital health interventions to promote healthy romantic relationships in adolescents. *Prevention Science*, 24, 625-639.
32. Doty JL, Davis L, & Arditti JA (2017). Cascading resilience: Leverage points in promoting

- parent and child well-being. *Journal of Family Theory & Review*, 9, 111-126.
33. Weist MD, Garbacz A, Schultz B, Bradshaw CP, & Lane KL (2024). Revisiting the percentage of K-12 students in need of preventive interventions in schools in a “Peri-COVID” era: Implications for the implementation of tiered programming. *Prevention Science*, 25, 481-487.
 34. Abdelmoteleb S, Ghallab M, & IsHak WW (2024). Evaluating the ability of artificial intelligence to predict suicide: A systematic review of reviews. *Journal of Affective Disorders*, 382, 525-539.
 35. Rice E & Young LE (2025). AI-augmented prevention science needs community-engaged prevention science: A framework for greater accountability. *Prevention Science*. DOI: 10.1007/s11121-025-01842-7
 36. Ram N, Haber N, Robinson TN, & Reeves B (2024). Binding the person-specific approach to modern AI in the human screenome project: Moving past generalizability to transferability. *Multivariate Behavioral Research*, 59, 1211-1219.
 37. Negriff S, Dilkina B, Matai L, & Rice E (2022). Using machine learning to determine the shared and unique risk factors for marijuana use among child-welfare versus community adolescents. *PLoS ONE*, 17, e0274998.
 38. Trinkley KE, An R, Maw AM, Glasgow RE, & Brownson RC (2024). Leveraging artificial intelligence to advance implementation science: Potential opportunities and cautions. *Implementation Science*, 19:17.
 39. Israel BA, Schulz AJ, Parker EA, & Becker AB (1998). Review of community-based research: Assessing partnership approaches to improve public health. *Annual Review of Public Health*, 19, 173-202.
 40. Minkler M & Wallerstein N (2012). Improving health through community organization and community building: Perspectives from health education and social work. In *Community Organizing and Community Building for Health and Welfare*, 3rd edition (M Minkler, Ed). Rutgers University Press: New Brunswick, New Jersey, and London
 41. Fagan AA & Hawkins JD (2015). Enacting preventive interventions at the community level: The communities that care prevention system. In *Handbook of Adolescent Drug Use Prevention: Research, Intervention Strategies, and Practice* (LM Scheier Ed.). American Psychological Association, Washington DC.
 42. Bright MA, Lynne SD, Masyn KE, Waldman MR, Graber JA, & Alexander R (2019). Association of Friday school report card release with Saturday incidence rates of agency-verified physical child abuse. *JAMA Pediatrics*, 173, 176-182.
 43. Gregory EF, Roberto CA, Mitra N, Edmondson EK, Petimar J, Block JP, Hettinger G, & Gibson LA (2025). The Philadelphia beverage tax and pediatric weight outcomes. *JAMA Pediatrics*, 179, 46-54.
 44. Kelly BC, Vuolo M, Orsini MM, Maggs JL, & Staff J (2025). Policy influences on adolescent risk perceptions of vaping. *Journal of Epidemiology Community Health*, 79, 919-925.
 45. Altaf S, Mallinson DJ, Park M, & Richardson Jr. LE (2025). Adding nuance to understanding the effects of cannabis legalization by using policy bundles: A study of youth mental health. *Substance Use & Misuse*, 60, 915-925.
 46. Pisani AR, Wyman PA, Mohr DC, Perrino T, Gallo C, Villamar J, Kendziora K, Howe GW, Sloboda Z, & Brown CH (2016). Human subjects protection and technology in prevention science: Selected opportunities and challenges. *Prevention Science*, 17, 765-778.
 47. Biesta G (2007). Why “What works” won’t work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory*, 57, 1-22.
 48. Birkeland S, Murphy-Graham E, & Weiss C (2005). Good reasons for ignoring good evaluation: The case of the drug abuse resistance education (D.A.R.E.) program. *Evaluation and Program Planning*, 28, 247-256.
 49. Holder H (2009). Prevention programs in the 21st century: What we do not discuss in public. *Addiction*, 105, 578-581.

Cover Sheet: Request 22739

SWS6722 AI Modeling in Soil and Ecosystem Sciences (Build-AI)

Info

Process	Course Add to Existinggrad AI
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Jenna Molen jenna.molen@ufl.edu
Created	3/20/2026 10:51:21 AM
Updated	4/1/2026 1:26:35 PM
Description of request	Approval flow for AI Course Designations Faculty members can request AI course designations, which will be processed through the following approval stages: Department approval College approval AI Education Committee (AI-Ed) approval If the request is solely for adding an AI designation without new curricular content, it is recommended by the AI Education Committee to bypass the departmental and college curriculum committees. However, if a new course with an AI designation is proposed, the standard curriculum approval process must be followed. Faculty/Departments can create their own submissions, but AI² Center staff is actively identifying courses and creating the submissions for departments to consider. For departmental approval, it is suggested to assign a designated person (such as the chair of the department curriculum committee or the associate chair for academics) to review and approve the proposal for completeness and appropriateness. Similarly, at the college level, this role could be filled by the chair of the college curriculum committee or an associate dean of academics.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Soil and Water Science 60210000	Patrick Wilson		4/1/2026
SWS 6722 - AI Modeling in Soil and Ecosystem Sciences - Syllabus (Spring 2025).pdf					3/20/2026
College	Pending	CALS - College of Agricultural and Life Sciences			4/1/2026
No document changes					
AI Curriculum Committee					
No document changes					
Graduate Curriculum Committee					
No document changes					
Office of the Registrar					
No document changes					
Graduate Catalog					
No document changes					
College Notified					
No document changes					

Existing AI Course (without changes) for request 22739

Info

Request: SWS6722 AI Modeling in Soil and Ecosystem Sciences (Build-AI)

Description of request: Approval flow for AI Course Designations

Faculty members can request AI course designations, which will be processed through the following approval stages:

Department approval

College approval

AI Education Committee (AI-Ed) approval

If the request is solely for adding an AI designation without new curricular content, it is recommended by the AI Education Committee to bypass the departmental and college curriculum committees.

However, if a new course with an AI designation is proposed, the standard curriculum approval process must be followed.

Faculty/Departments can create their own submissions, but AI² Center staff is actively identifying courses and creating the submissions for departments to consider.

For departmental approval, it is suggested to assign a designated person (such as the chair of the department curriculum committee or the associate chair for academics) to review and approve the proposal for completeness and appropriateness. Similarly, at the college level, this role could be filled by the chair of the college curriculum committee or an associate dean of academics.

Submitter: Jenna Molen jenna.molen@ufl.edu

Created: 3/19/2026 2:16:34 PM

Form version: 1

Responses

Canvas Availability Yes, I acknowledge this requirement.

Assessment Data Yes, I acknowledge this requirement.

Weekly Schedule and Assignments Yes, I acknowledge this requirement.

Course Prefix and Number SWS6722

Course Title AI Modeling in Soil and Ecosystem Sciences

Lab Code None

Delivery Method PC - Primarily Classroom (0-49% of course content taught outside of classroom)

Effective Term Earliest Available

Effective Year Earliest Available

Credit Hours 3

Prerequisites STA6166 or GEO6160 & SWS5721C

AI Percentile Designation This course contains 50% or greater AI-related content and/or assignments.

Requested AI Categories Build-AI: Evaluate and Create AI

SLO Statement Requirement I understand and agree to include the required statements in the course syllabus.

Rationale for the AI Category Data-driven AI modeling aims to predict, assess or optimize soil health, crop health, soil and ecosystem indicators, functions, processes, responses, interactions, and change in soil-ecosystems. The purpose of integrative soil-ecosystem modeling is rooted in finding better answers to the wicked environmental challenges of our time including adaptation and mitigation to global climate change, carbon and climate-smart agricultural management, multi-hazard eco-disasters (e.g., floods, droughts, erratic climate), food security, soil and public health, development of sustainable, resilient and regenerative agricultural systems, and many more. AI models are built from soil, spectral, and environmental geospatial data to

model complex soil-water-crop-management-climate-human relationships. Data-driven GeoAI has profound capacity to reshape our thinking of soil-ecosystems and how to sustain and regenerate them.

Course Description AI modeling to understand the properties and functions of soils and ecosystems.

Course Objectives critically think about AI modeling approaches in soil and ecosystem sciences and evaluate and create AI models.

Instructor(s) Sabine Grunwald

Required Links and Policies Yes



SWS 6722

AI Modeling in Soil and Ecosystem Sciences

(AI: Artificial Intelligence)

Distance Education Course

INSTRUCTOR:

Dr. Sabine Grunwald, Professor, Soil, Water and Ecosystem Sciences Department, University of Florida, 2181 McCarty Hall, PO Box 110290, Gainesville, FL 32611.

Faculty profile: <https://www.sgrunwald.org/>

CONTACT:

- Email: sabgru@ufl.edu
- Phone: 352-294-3145

TIMES: Spring semester odd years

CREDIT HOURS: 3

ENROLLMENT CAP: 20

FORMAT: Lectures, readings, instructor facilitates class discussions, discovery and exploratory learning, and immersion in soil and ecosystem projects.

TIME: Wednesdays 6:15 – 8:10 pm U.S. Eastern time (11 Period and E1 Period); Zoom chat.

PREREQUISITES:

A statistics or quantitative methods graduate course (e.g., STA 6166, GEO 6160), working knowledge in GIS (e.g., SWS 5721C), and basic coding skills (Python and/or R). If you do not fulfill these requirements seek permission from the instructor to enroll in this course.

COURSE DESCRIPTION:

AI modeling to understand the properties and functions of soils and ecosystems.

COURSE GOALS AND OBJECTIVES:

The goals of this class are to critically think about AI modeling approaches in soil and ecosystem sciences and evaluate and create AI models.

Objectives:

1. Discover AI modeling approaches applied to soils and ecosystems.
2. Discuss data and AI algorithms applied to soils and ecosystems.
3. Create your own AI model on a topic related to soils and/or ecosystem science.

After completing this course, students will be able to critically think about AI modeling approaches in soil and ecosystem sciences and evaluate and create AI models.

What is AI Modeling:

Data-driven AI modeling aims to predict, assess or optimize soil health, crop health, soil and ecosystem indicators, functions, processes, responses, interactions, and change in soil-ecosystems. The purpose of integrative soil-ecosystem modeling is rooted in finding better answers to the wicked environmental challenges of our time including adaptation and mitigation to global climate change, carbon and climate-smart agricultural management, multi-hazard eco-disasters (e.g., floods, droughts, erratic climate), food security, soil and public health, development of sustainable, resilient and regenerative agricultural systems, and many more. AI models are built from soil, spectral, and environmental geospatial data to model complex soil-water-crop-management-climate-human relationships. Data-driven GeoAI has profound capacity to reshape our thinking of soil-ecosystems and how to sustain and regenerate them.

LEARNING APPROACH:

A discovery style of learning is used in this course to facilitate learning. This means to open your eyes and learn through deep understanding of the AI paradigm. We learn through dialogue, playful exploration, critical reflection and discussion. Students will immerse themselves in the course topics through reading, discussion of case studies (e.g., hot topics in soil and ecosystem sciences, AI model applications in soil and ecosystem sciences), and design and conduct their own AI soil-ecosystem modeling projects. The instructor uses coaching techniques to facilitate the learning process, including targeted Q&A sessions, unlocking self-motivation to study, learning as exploration, and class discussions that acknowledge multiple perspectives.

COURSE ACTIVITIES:

Each student will work on the following:

- 1) Case study discussion: You will explore and discuss various published AI soil-ecosystem modeling studies.

- 2) **AI modeling project:** You will (i) Select a hot topic in soil and ecosystem sciences and discuss its significance; (ii) Conduct a brief literature review on this topic: focus on AI modeling approaches that have been used to study the selected topic (read and cite a minimum of 10 peer-reviewed journal articles, books, and/or book chapters); (iii) Identify research objectives to investigate the selected soil-ecosystem topic; (iv) Acquire soil and environmental data to meet the project objectives; (v) Apply at least two AI methods to the data; describe the methods to train and validate the model; assess model performance, conduct error and uncertainty analyses; (vi) Document and discuss results, (vii) Present the AI modeling results in class and submit a project report.

The project encourages students to think critically and learn how to approach an unknown complex soil-ecosystem topic. Students have to demonstrate mastery, comprehension, application, and synthesis of a given set of data and concepts into a model framework.

COURSE WEB SITE:

UF Canvas course management system (eLearning): <https://elearning.ufl.edu/>

SOFTWARE AND CODING:

ArcGIS Pro, Python, and R.

READING MATERIAL:

Reading material in this course is based on journal articles available through the UF library or open science publications.

Reading examples:

Diaz-Gonzalez, F. A., Vuelvas, J., Correa, C. A., Vallejo, V. E., & Patino, D. (2022). Machine learning and remote sensing techniques applied to estimate soil indicators – Review. *Ecological Indicators*, 135, 108517. <https://doi.org/10.1016/j.ecolind.2021.108517>

Grunwald, S. (2021). Grand challenges in pedometrics-AI research. *Frontiers in Soil Science - Pedometrics*, 1(Article 714323), 1–8. <https://doi.org/10.3389/fsoil.2021.714323>

Grunwald, S. (2022). Artificial intelligence and soil carbon modeling demystified: Power, potentials, and perils. *Carbon Footprints*, 1(5), 1–23. <https://doi.org/10.20517/cf.2022.03>

Khaledian, Y., & Miller, B. A. (2020). Selecting appropriate machine learning methods for digital soil mapping. *Applied Mathematical Modelling*, 81, 401–418. <https://doi.org/10.1016/j.apm.2019.12.016>

LeCun, Y., Bengio, Y., & Hinton, G. (2015). Deep learning. *Nature*, 521(7553), 436–444. <https://doi.org/10.1038/nature14539>

Liao, S. M. (Ed.). (2020). *Ethics of artificial intelligence*. Oxford University Press.

McBratney, A. B., Minasny, B., & Stockmann, U. (Eds.). (2018). *Pedometrics* (1st ed.). Springer.

Ng, W., Minasny, B., Montazerolghaem, M., Padarian, J., Ferguson, R., Bailey, S., & McBratney, A. B. (2019). Convolutional neural network for simultaneous prediction of several soil properties using visible/near-infrared, mid-infrared, and their combined spectra. *Geoderma*, 352, 251–267. <https://doi.org/10.1016/j.geoderma.2019.06.016>

- Padarian, J., Minasny, B., & McBratney, A. B. (2019). Using deep learning for digital soil mapping. *SOIL*, 5(1), 79–89. <https://doi.org/10.5194/soil-5-79-2019>
- Russell, S., & Norvig, P. (2020). *Artificial intelligence: A modern approach*. Pearson.
- Wadoux, A. M. J.-C., Samuel-Rosa, A., Poggio, L., & Mulder, V. L. (2020). A note on knowledge discovery and machine learning in digital soil mapping. *European Journal of Soil Science*, 71(2), 133–136. <https://doi.org/10.1111/ejss.12909>
- Zhao, B., Zhang, S., Xu, C., & Liu, X. (2020). Spoofing in geography: Can we trust artificial intelligence to manage geospatial data? In X. Ye & H. Lin (Eds.), *Spatial synthesis. Human dynamics in smart cities*. (pp. 325–338). Springer. https://doi.org/10.1007/978-3-030-52734-1_19
- Zhao, T., Wang, S., Ouyang, C., Chen, M., Liu, C., Zhang, J., Yu, L., Wang, F., Xie, Y., Li, J., Wang, F., Grunwald, S., Wong, B. M., Zhang, F., Qian, Z., Xu, Y., Yu, C., Han, W., Sun, T., ... Wang, L. (2024). Artificial intelligence for geoscience: Progress, challenges, and perspectives. *The Innovation*, 5(5), 1–25. <https://doi.org/10.1016/j.xinn.2024.100691>

RECOMMENDED TEXTBOOKS:

Select one of the books as supporting material to deepen your skills in the topical area of your AI modeling project: AI & agriculture (**AI-Ag**), AI general (**AI-G**), AI & environmental sensing (**AI-E**), AI & soils (**AI-S**), AI technical and coding skills of machine learning models (**AI-T**).

- AI-T:** Géron A. (2023). *Hands-On Machine Learning with Scikit-Learn, Keras & TensorFlow: Concepts, Tools, and Techniques to Build Intelligent Systems*. O'Reilly Media.
- AI-Ag:** Kose U., Prasath V.B.S., Mondal M.R.H., Podder P., & Bharati S. (Eds.) (1st Ed.) (2022). *Artificial Intelligence and Smart Agriculture Technology*. CRC Press.
- AI-S:** Malone B.P., Minasny B., & McBratney A.B. (2017). *Using R for Digital Soil Mapping*. Springer.
- AI-S:** McBratney A.B., Minasny B., & Stockman U. (Eds.) (2018). *Pedometrics* (1st Ed.). Springer.
- AI-E:** Mohsen A., Razmjou A., & Beheshti A. (Eds.) (2022). *Artificial Intelligence and Data Science in Environmental Sensing* (1st Ed.). Academic Press.
- AI-G:** Russell S. & Norvig P. (2021). *Artificial Intelligence – A Modern Approach* (4th Ed.). Pearson.

GRADING:

Case study discussion (four graded discussions) – AI modeling in soil and ecosystem sciences: 40%

AI modeling project:

- First part (15%): Design of project (selection of topic and description of significance, literature review, and proposal how to conduct the project: data and methods).
- Second part (15%): Conduct the project and present model results.
- Third part (15%): Submit AI modeling project report.

Class presentations & participation: 15%

GRADING SCHEME:

Passing Letter Grade	Course Points	Grade Points
A	95-100	4.00
A-	90-94	3.67
B+	85-89	3.33
B	80-84	3.00
B-	75-79	2.67
C+	70-74	2.33
C	65-69	2.00
C-	60-64	1.67
D+	55-59	1.33
D	50-54	1.00
D-	45-49	0.67
E	45-below	0

Failing Grades	Course Points	Grade Points
E	0	0
WF	0	0
I	0	0
NG	0	0

Definitions

E = Failure

H = Deferred grade assigned only in approved sequential courses or flexible learning

I* / I = Incomplete

N* / NG = No grade reported

S = Satisfactory

U = Unsatisfactory

W = Withdrew

WF = Withdrew failing

The grading policy of UF will be followed in this course as outlined at:

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

EXPECTATIONS AND GRADING POLICY IN THIS COURSE:

The AI modeling case studies will serve as examples to learn how AI is applied in soil and ecosystem sciences. The discussion of these case studies will stimulate critical thinking how to apply AI soil-ecosystem modeling. Different AI methods will be explored, and their pros and cons discussed. We will use the UF NaviGator AI that provides access to various Large Language Models (LLMs) in combination with peer-reviewed literature to explore various perspectives.

Students are expected to work independently on their AI modeling projects. Properly cite and give credit to data and literature sources used in your projects. In this course the antiplagiarism software Turnitin is used. Late submissions of the project reports will result in 15% reduction of points within 12 hours late submission and 30% reduction of points between 24 hours late submission. After more than 24 hours

late submission zero points will be assigned. All project reports need to be submitted through the UF course website. Submissions via email attachments will not be accepted.

The IT staff of the University of Florida provides the service to assist with technical problems (e.g., ArcGIS Pro software via UF Apps or UF's Software Licensing at the GeoPlan Center). R and Python are free to use.

A detailed weekly schedule and submission deadlines of course assignments will be provided on the course website in UF's eLearning (Canvas).

COURSE MODULES:

1. Introduction to Soil and Ecosystem Modeling

- a. Wicked soil and environmental problems
- b. Soil-landscape dimensions and conceptual models of soil-ecosystems
- c. Significance of spatial and temporal scales in ecosystem modeling
- d. Soil and environmental geodata and platforms to support AI modeling

2. Digital Twins in Pedometrics and Environmetrics

- a. Digital soil twins: Digital soil mapping and modeling approaches
- b. Digital twins of the total environment

3. GeoAI Model Applications in Soil and Ecosystem Sciences

- a. Soil carbon modeling, soil respiration and greenhouse gas emissions
- b. Soil health indicators
- c. Soil-ecosystem indices
- d. Smart agricultural systems
- e. Ecosystem functions and processes

4. Overview AI Modeling in Soil and Ecosystem Sciences

- a. The power, myths, risks, and perils of GeoAI?
- b. The foundation and history of AI in context of soil and ecosystem sciences
- c. Data-driven AI modeling vs. knowledge-based modeling
- d. AI vs. other modeling paradigms (statistical, geostatistical, fuzzy logic, probabilistic, Bayesian, state-budget, optimization, multi-agent, phenomenological, mechanistic process-based modeling)
- e. The human dimension in AI soil-ecosystem modeling
- f. Ethics of data-driven AI in soil science, ecosystem sciences, and agriculture and life sciences

5. Specific AI Methods and Model Assessments

- a. Types of AI approaches: Machine learning, deep learning, and reinforcement learning
- b. Empirical soil and environmental data and pseudo variables
- c. Feature selection methods
- d. AI model assessments (training/calibration, verification/validation, error metrics, and uncertainty assessment)
- e. Commonly used AI algorithms in soil and ecosystem sciences:
 - Classification and Regression Trees
 - Bagged Regression Trees
 - Boosted Regression Trees
 - Random Forest

- Quantile Regression Forests
 - Support Vector Machines
 - Support Vector Regression
 - Partial Least Square Regression
 - Cubist
 - Artificial Neural Networks, ANN (backpropagation ANN, recurrent neural networks, RNN; convolutional neural networks, CNN)
 - Long Short-Term Memory (LSTM)
- f. Integration modeling (triangulation, hybrid modeling, coupled models, ensemble modeling, sequential modeling, meta-modeling)

ATTENDANCE AND MAKE-UP WORK

Absences

Students are responsible for satisfying all academic objectives as defined by the instructor. Absences count from the first class meeting.

In general, acceptable reasons for absence from or failure to participate in class include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, professional conferences), military obligation, severe weather conditions, religious holidays and participation in official university activities such as music performances, athletic competition or debate. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) must be excused. Other reasons also may be approved.

You cannot participate in classes unless you are registered officially or approved to audit with evidence of having paid audit fees. The Office of the University Registrar provides official class rolls to instructors.

If you do not participate in at least one of the first two class meetings of a course or laboratory in which you are registered, and you have not contacted the department to indicate your intent, you can be dropped from the course. You must not assume that you will be dropped, however. The department will notify you if you have been dropped from a course or laboratory. You can request reinstatement on a space-available basis if you present documented evidence.

The university recognizes the right of the individual professor to make attendance mandatory. After due warning, professors can prohibit further attendance and subsequently assign a failing grade for excessive absences.

Religious Holidays

The Florida Board of Education and state law govern university policy regarding observance of religious holidays. The following guidelines apply:

- Students, upon prior notification to their instructors, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith.
- Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence.
- Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances.

If a faculty member is informed of or is aware that a significant number of students are likely to be absent from class because of a religious observance, the faculty member should not schedule a major exam or other academic event at that time.

A student who is to be excused from class for a religious observance is not required to provide a second party certification of the reason for the absence. Furthermore, a student who believes that he or she has been unreasonably denied an education benefit due to religious beliefs or practices may seek redress through the student grievance procedure.

Illness Policy

If you are absent from classes or examinations because of illness you should contact your instructors. You should contact your college by the deadline to drop a course for medical reasons. You can petition the Dean of Students Office to drop a course for medical reasons. The university's policy regarding medical excuse from classes is maintained by the Student Health Care Center.

Twelve-Day Rule

Students who participate in athletic or extracurricular activities are permitted to be absent 12 scholastic days per semester without penalty. (A scholastic day is any day on which regular class work is scheduled.) Instructors must be flexible when scheduling exams or other class assignments.

The 12-day rule applies to individual students participating on athletic or scholastic teams. Consequently, a group's schedule that requires absence of more than 12 days should be adjusted so that no student is absent from campus more than 12 scholastic days.

If you previously have been warned about absences or unsatisfactory work you should not incur additional absences, even if you have not been absent 12 scholastic days. It is your responsibility to maintain satisfactory academic performance and attendance.

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>.

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.bluer.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-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>. The updated (2018) UF Student Honor and Student Code of Conduct can be found at: <http://gatortimes.ufl.edu/2018/08/20/updated-uf-student-honor-and-student-code-of-conduct/>.

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/

CAMPUS HELPING RESOURCES:

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. 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/*
 - Counseling Services
 - Groups and Workshops
 - Outreach and Consultation
 - Self-Help Library
 - Wellness Coaching
- *Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/*
- *UF Mindfulness: <https://www.ufmindfulness.org/>*

RECORDINGS:

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.

Cover Sheet: Request 22813

BS - Food and Agribusiness Marketing and Management

Info

Process	Specialization New/Modify/Close Ugrad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Misti Sharp mistisharp@ufl.edu
Created	4/9/2026 1:45:28 PM
Updated	4/9/2026 5:28:17 PM
Description of request	We are removing a critical tracking course, updating our model semester plan, and updating our elective offers.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Food and Resource Economics 60060000	Lisa House		4/9/2026
FAMM_Electives_TrackChanges.docx					4/9/2026
FAMMCriticalTracking_TrackChanges.docx					4/9/2026
FAMMModelSemesterPlan_TrackChanges.docx					4/9/2026
College	Pending	CALS - College of Agricultural and Life Sciences			4/9/2026
No document changes					
Associate Provost for Undergraduate Affairs					
No document changes					
University Curriculum Committee					
No document changes					
Office of the Registrar					
No document changes					
Catalog					
No document changes					
Student Academic Support System					
No document changes					
College Notified					
No document changes					

Specialization|Modify for request 22813

Info

Request: BS - Food and Agribusiness Marketing and Management

Description of request: We are removing a critical tracking course, updating our model semester plan, and updating our elective offers.

Submitter: Misti Sharp mistisharp@ufl.edu

Created: 4/9/2026 5:15:38 PM

Form version: 2

Responses

Specialization Name Food and Agribusiness Marketing and Management

Change name of Specialization No

Specialization Code 103

Effective Term Earliest Available

Effective Year Earliest Available

Is this an Undergraduate Innovation Academy Program No

Current Curriculum for Specialization Food and Agribusiness Marketing and Management

Proposed Changes We are proposing several changes to our curriculum, including:

- 1) Removing ACG2021 as a critical tracking course
- 2) Updating the model semester plan to remove ACG 2021 and make slight changes to course sequencing and credits to better match the student experience
- 3) Update electives for the specialization

UF Online curriculum change No

Pedagogical Rationale/Justification Historically, we have had four critical tracking courses: ACG2021, STA2023, MAC2233, and ECO2013. Each of these courses are common pre-requisites of our upper division courses. For the accounting/finance sequence, we have the following progression: ACG2021 (Financial Accounting) □ AEB3122 (Financial Planning for Agribusiness) □ AEB3144 (Introduction to Agricultural Finance)

However, many students, including our students, do not need a firm grasp on accounting to understand financial planning and finance (which is more about financial flows than static debits and credits). As such, we removed ACG2021 as a prerequisite for AEB3122, instead requiring MAC1105 or higher. Given that ACG2021 is no longer required for AEB3122, there is no real need for it in our curriculum. Moreover, there are several benefits of removing it from our curriculum. Given the change in our critical tracking, we are removing ACG2021 from the curriculum. We have replaced it with electives.

We have historically required 9 credits of FRE electives. Many of our electives were classes that are not consistently offered by other programs. As such, we have included classes that we have been using as electives and classes that we have recently added to the AEB offerings that students could take advantage of going forward.

Impact on Other Programs We anticipate that the changes in our curriculum will be helpful for other programs. The benefits of removing ACG 2021 are that most students take ACG2021 at a community college or through dual enrollment, leading to a very mixed experience of students in this class. Some students coming to AEB3122 with a firm grasp of accounting and find the class to be too repetitive of their previous experience. Some students come into AEB3122 and feel lost as the accounting presented is at a higher level than their pre-requisite experience prepared them for either outside of UF or within UF as a notoriously challenging class. Almost all students would rather AEB3122 focus more on agribusiness applications, but most managerial accounting textbooks feature scant agribusiness applications. We would like to strengthen AEB3122 by focusing the curriculum on financial and managerial decision making for small agribusinesses for the benefit of students taking the class as an elective, through our "Management and Sales in Agribusiness" minor, or within our major and the finance sequence. We already have verbal confirmation that AOM and Animal Sciences would welcome this change as it would allow the course AEB3122 to be more applicable to their students as well.

Assessment Data Review According to our academic learning compact, “Students will learn to apply a conceptual framework using economic reasoning and generally accepted economic principles to problem solving. They will also learn to analyze and interpret economic data, and to critically evaluate economic information in media and politics.” We are not training accountants, and thus we have thought for many years that removing this as a critical tracking course would help us to develop a more coherent agribusiness and economics focused curricula.

We find in advising appointments that it can be a challenge for our students to find sufficient electives. We hope that by adding electives offered by FRE, our students will be able to have efficient completion of their degree.

Academic Learning Compact and Academic Assessment Plan There are no changes to the academic learning compact or academic assessment plan

Catalog Copy Yes

Food and Agribusiness Marketing and Management

- [Home](#)
- [Undergraduate Catalog](#)
- [Colleges and Schools](#)
- [Agricultural and Life Sciences | College of](#)
- [Food and Resource Economics](#)
- Food and Agribusiness Marketing and Management

Through curriculum and experiential learning, students develop the skills to analyze complex situations such as the allocation of natural resources to meet the needs of people in local, state, national, and global communities. Food and Resource Economics students study sales, finance, marketing, management, environmental policy, law, international trade, math and economics.

Undergraduate Catalog

- [Food and Agribusiness Marketing and Management](#)
- [International Food and Resource Economics](#)

About this Program

- **College:** [Agricultural and Life Sciences](#)
- **Degree:** Bachelor of Science
- **Specializations:** [Food and Agribusiness Marketing and Management](#) | [International Food and Resource Economics](#)
- **Credits for Degree:** 120
- [More Info](#)

To graduate with this major, students must complete all university, college, and major requirements.

Department Information

- [Overview](#)
- [Critical Tracking](#)
- [Model Semester Plan](#)
- [Approved Electives](#)
- [Academic Learning Compact](#)

Code	Title	Credits
AEB 3315	Futures Markets and Risk Management in Agriculture	3
AEB 3341	Selling Strategically	3
AEB 4085	Agricultural Risk Management and the Law	3
AEB 4123	Agricultural and Natural Resource Law	3
AEB 4126	Agricultural and Natural Resource Ethics	
AEB 4380	Agricultural Marketing Strategies	3
AEB 4424	Human Resources Management in Agribusiness	3
GEO 3502	Economic Geography	3

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Code	Title	Credits
ECO 4421	Econometrics (Check pre-requisites)	4
AEB 4005	Agricultural and Rural Entrepreneurship	3
AEB 4344	Agribusiness Enterprise Development	3
ENT 3003	Principles of Entrepreneurship	4
Select one of the following AEB pre-fixed Quest 2 Courses:		3
AEB 2452	Agritourism and Food Systems	
AEB 2294	Valuing the Circular Economy	
AEB 2372	Economics of Eating	
AEB 2284	How do we end poverty?	
Special Experiential Learning AEB prefixed courses (AEB 4911 , AEB 4905 , AEB 4915 , and AEB 4941 , AEB 4951 , AEB 4380) or any 1-3 credits of study abroad.		1-3

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Course List

Food and Agribusiness Marketing and Management

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Critical Tracking records each student's progress in courses that are required for progress toward each major. Please note the critical-tracking requirements below on a per-semester basis.

Students also must earn a minimum GPA of 2.25 in all AEB courses.

Equivalent critical-tracking courses as determined by the State of Florida [Common Course Prerequisites](#) may be used for transfer students.

Semester 1

- Complete 1 of ~~4~~3 critical courses: ~~ACG 2021~~, [ECO 2013](#), [MAC 2233](#), [STA 2023](#)
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 2

- Complete 1 additional critical-tracking course
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 3

- Complete [MAC 2233](#)
- 2.0 GPA required for all critical-tracking courses

- 2.0 UF GPA required

Semester 4

- Complete 1 additional critical-tracking course
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 5

- Complete all critical-tracking courses
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 6

- Complete [AEB 3510](#)
- 2.0 upper division GPA required
- 2.25 GPA required for all AEB courses
- 2.0 UF GPA required

Semester 7

- Complete [AEB 3550](#)
- 2.0 upper division GPA required
- 2.25 GPA required for all AEB courses
- 2.0 UF GPA required

Semester 8

- 2.0 upper division GPA required
- 2.25 GPA required for all AEB courses
- 2.0 UF GPA required

Food and Agribusiness Marketing and Management

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- Food and Agribusiness Marketing and Management

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Undergraduate Catalog

- [Food and Agribusiness Marketing and Management](#)
- [International Food and Resource Economics](#)

About this Program

- **College:** [Agricultural and Life Sciences](#)
- **Degree:** Bachelor of Science
- **Specializations:** [Food and Agribusiness Marketing and Management](#) | [International Food and Resource Economics](#)
- **Credits for Degree:** 120
- [More Info](#)

To graduate with this major, students must complete all university, college, and major requirements.

Department Information

- [Overview](#)
- [Critical Tracking](#)
- [Model Semester Plan](#)
- [Approved Electives](#)
- [Academic Learning Compact](#)

To remain on track, students must complete the appropriate critical-tracking courses, which appear in bold. These courses must be completed by the terms as listed above in the Critical Tracking criteria.

This semester plan represents an example progression through the major. Actual courses and course order may be different depending on the student's academic record and scheduling availability of courses. Prerequisites still apply.

Semester One		Credits
ECO 2013	Principles of Macroeconomics (Critical Tracking ; State Core Gen Ed Social and Behavioral Sciences)	4
MAC 1147	Algebra and Trigonometry (Gen Ed Mathematics; if needed, or select one elective)	4
Elective	Elective	<u>2</u>
State Core Gen Ed Biological or Physical Sciences ¹		3-4
State Core Gen Ed Composition ; Writing Requirement ²		3

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Credits		15-16 16-17
Semester Two		
Quest 1 (Gen Ed Humanities)		3
MAC 2233	Survey of Calculus 1 (Critical Tracking ; State Core Gen Ed Mathematics)	3
Civic Literacy Requirement – Select one:		3
POS 2041	American Federal Government (Gen Ed Social and Behavioral Sciences)	
AMH 2020	United States Since 1877 (Gen Ed Social and Behavioral Sciences)	
State Core Gen Ed Humanities ²		3
Gen Ed Composition; Writing Requirement ²		3
Credits		15
Semester Three		
Quest 2		3

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ACG 2021 Elective	Introduction to Financial Accounting (Critical Tracking)Elective	43
AEC 3033C	Research and Business Writing in Agricultural and Life Sciences (Writing Requirement)	3
STA 2023	Introduction to Statistics 1 (Critical Tracking ; Gen Ed Mathematics)	3
Gen Ed Biological or Physical Science ¹		3
Credits		1615
Semester Four		
ACG 2071 or AEB 3122 ⁴	Introduction to Managerial Accounting or Financial Planning for Agribusiness	3-4
AEB 3103	Principles of Food and Resource Economics (Gen Ed Social and Behavioral Sciences)	4
AEB 3935 2935	Food and Resource Economics Seminar	1
AEC 3030C	Effective Oral Communication	3
Gen Ed Biological-Chemistry or Physical Sciences ¹		3
Credits		14-15

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Semester Five		
AEB 2451	Economics of Resource Use	3
AEB 3300	Agricultural and Food Marketing	3
AEB 3281 AEB 3510	Agricultural Macroeconomics Quantitative Methods in Food and Resource Economics (Critical Tracking)	3
AEB 3133	Principles of Agribusiness Management	3
Elective		3
Credits		15
Semester Six		
AEB 3144	Introduction to Agricultural Finance	3
AEB 4242 AEB 3281	Agricultural Macroeconomics International Trade Policy in Agriculture	3
AEB 3510	Quantitative Methods in Food and Resource Economics (Critical Tracking)	<u>3</u>
Approved Food and Agribusiness Marketing and Management Elective		3

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Elective	3
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Credits	15
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Semester Seven

AEB 4138 Advanced Agribusiness Management	3
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AEB 4242 International Trade Policy in Agriculture	3
---	---

Approved Food and agribusiness-Agribusiness marketing-Marketing and management-Management elective	3
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Writing Requirement course	3
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Elective	3
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Credits	15
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Semester Eight

AEB 4325 Contemporary Issues in Agribusiness Management	3
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Select one:	3-4
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AEB 4334 Agricultural Price Analysis and Consumer Behavior	
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AEB 4374	Advanced Agricultural Microeconomics ³	
ECO 3101	Intermediate Microeconomics ³	
AEB 4342	Agribusiness and Food Marketing Management	3
Approved Food and agribusiness Agribusiness marketing Marketing and management Management elective		3
Elective		13
Credits		13-14 15-16
Total Credits		120

Plan of Study Grid

1

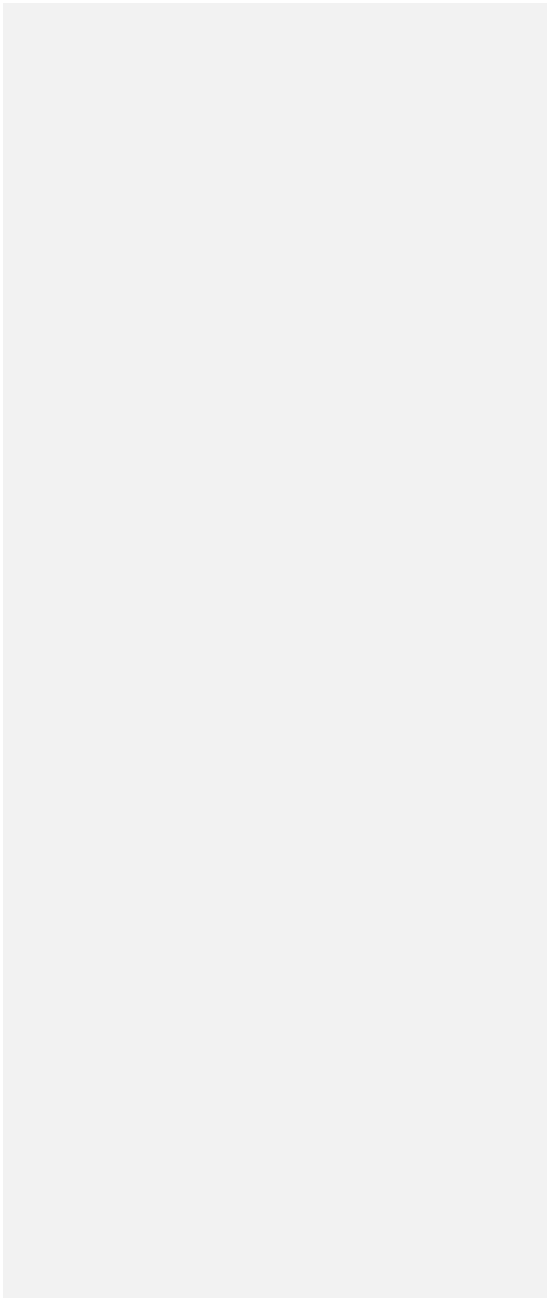
At least one science course (e.g., [SWS 3022L](#)) must include a laboratory component.

2

The order in which these courses are taken is not important.

3

Students pursuing graduate school should consider this option.



Cover Sheet: Request 22812

BS - International Food and Resource Economics

Info

Process	Specialization New/Modify/Close Ugrad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Misti Sharp mistisharp@ufl.edu
Created	4/9/2026 1:34:37 PM
Updated	4/9/2026 5:28:02 PM
Description of request	We are removing a critical tracking course, updating our model semester plan, and updating our elective offers.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Food and Resource Economics 60060000	Lisa House		4/9/2026
IFRE_Electives_TrackChanges.docx					4/9/2026
IFRECriticalTracking_TrackChanges.docx					4/9/2026
IFREModelSemesterPlan_TrackChanges (1).docx					4/9/2026
College	Pending	CALS - College of Agricultural and Life Sciences			4/9/2026
No document changes					
Associate Provost for Undergraduate Affairs					
No document changes					
University Curriculum Committee					
No document changes					
Office of the Registrar					
No document changes					
Catalog					
No document changes					
Student Academic Support System					
No document changes					
College Notified					
No document changes					

Specialization|Modify for request 22812

Info

Request: BS - International Food and Resource Economics

Description of request: We are removing a critical tracking course, updating our model semester plan, and updating our elective offers.

Submitter: Misti Sharp mistisharp@ufl.edu

Created: 4/9/2026 5:17:16 PM

Form version: 2

Responses

Specialization Name International Food and Resource Economics

Change name of Specialization No

Specialization Code 104

Effective Term Earliest Available

Effective Year Earliest Available

Is this an Undergraduate Innovation Academy Program No

Current Curriculum for Specialization International Food and Resource Economics

Proposed Changes We are proposing several changes to our curriculum, including:

- 1) Removing ACG2021 as a critical tracking course
- 2) Updating the model semester plan to remove ACG 2021 and make slight changes to course sequencing and credits to better match the student experience
- 3) Update electives for the specialization

UF Online curriculum change No

Pedagogical Rationale/Justification Historically, we have had four critical tracking courses: ACG2021, STA2023, MAC2233, and ECO2013. Each of these courses are common pre-requisites of our upper division courses. For the accounting/finance sequence, we have the following progression: ACG2021 (Financial Accounting) □ AEB3122 (Financial Planning for Agribusiness) □ AEB3144 (Introduction to Agricultural Finance) □ AEB4138 (Advanced Agribusiness Management) However, many students, including our students, do not need a firm grasp on accounting to understand financial planning and finance (which is more about financial flows than static debits and credits). As such, we removed ACG2021 as a prerequisite for AEB3122, instead requiring MAC1105 or higher. Given that ACG2021 is no longer required for AEB3122, there is no real need for it in our curriculum. Moreover, there are several benefits of removing it from our curriculum.

Given the change in our critical tracking, we are removing ACG2021 from the curriculum. We have replaced it with electives.

We have historically required 9 credits of FRE electives. Many of our electives were classes that are not consistently offered by other programs. As such, we have included classes that we have been using as electives and classes that we have recently added to the AEB offerings that students could take advantage of going forward.

Impact on Other Programs We anticipate that the changes in our curriculum will be helpful for other programs.

The benefits of removing ACG 2021 are that most students take ACG2021 at a community college or through dual enrollment, leading to a very mixed experience of students in this class. Some students coming to AEB3122 with a firm grasp of accounting and find the class to be too repetitive of their previous experience. Some students come into AEB3122 and feel lost as the accounting presented is at a higher level than their pre-requisite experience prepared them for either outside of UF or within UF as a notoriously challenging class. Almost all students would rather AEB3122 focus more on agribusiness applications, but most managerial accounting textbooks feature scant agribusiness applications. We would like to strengthen AEB3122 by focusing the curriculum on financial and managerial decision making for small agribusinesses for the benefit of students taking the class as an elective, through our "Management and Sales in Agribusiness" minor, or within our major and the finance sequence. We already have verbal confirmation that AOM and Animal Sciences would

welcome this change as it would allow the course AEB3122 to be more applicable to their students as well.

Including more electives provides more flexibility for our students to explore other areas of interest. By including our entrepreneurship, law, and ethics classes, our students can easily further specialize their learning based on their career plans.

Assessment Data Review According to our academic learning compact, “Students will learn to apply a conceptual framework using economic reasoning and generally accepted economic principles to problem solving. They will also learn to analyze and interpret economic data, and to critically evaluate economic information in media and politics.” We are not training accountants, and thus we have thought for many years that removing this as a critical tracking course would help us to develop a more coherent agribusiness and economics focused curricula.

We find in advising appointments that it can be a challenge for our students to find sufficient electives. We hope that by adding electives offered by FRE, our students will be able to have efficient completion of their degree.

Academic Learning Compact and Academic Assessment Plan There are no changes to the academic learning compact or academic assessment plan.

Catalog Copy Yes

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Code	Title	Credits
AEB 4282	International Humanitarian Assistance (Gen Ed Social and Behavioral Sciences with International)	3
AEB 4283	International Development Policy (Gen Ed Social and Behavioral Sciences)	3
AEB 4126	Agricultural and Natural Resource Ethics	3
AEB 3450	Introduction to Natural Resource and Environmental Economics	3
GEO 3502	Economic Geography	3
AEB 4123	Agricultural and Natural Resource Law	3
AEB 4085	Agricultural Risk Management and the Law	3
AEB 4344	Agricultural Enterprise Development	3

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Code	Title	Credits
AEB 4005	Agricultural and Rural Entrepreneurship	3
ECO 4421	Econometrics (check pre-requisites)	4
Any 3000 level or above course in LAS, EUS or AFS		3
Select one of the following AEB pre-fixed Quest 2 Courses:		3
AEB2284	How do we end poverty?	
AEB2372	Economics of Eating	
AEB 2452	Agritourism and Food Systems	
AEB 2294	Valuing the Circular Economy	
Special Experiential Learning AEB prefixed courses (AEB 4911 , AEB 4905 , AEB 4915 , and AEB 4941 , AEB 4951 , AEB 4380) or any 1-3 credits of study abroad.		1-3

Course List

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Critical Tracking records each student's progress in courses that are required for progress toward each major. Please note the critical-tracking requirements below on a per-semester basis.

Students also must earn a minimum GPA of 2.25 in all AEB courses.

Equivalent critical-tracking courses as determined by the State of Florida Common Course Prerequisites may be used for transfer students.

Semester 1

- Complete 1 of 3 critical courses: ECO 2013, MAC 2233, STA 2023
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 2

- Complete 1 additional critical-tracking course
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 3

- Complete MAC 2233
- 2.0 GPA required for all critical-tracking courses

- 2.0 UF GPA required

Semester 4

- Complete 1 additional critical-tracking course
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 5

- Complete all critical-tracking courses
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 6

- Complete AEB 3510
- 2.0 upper division GPA required
- 2.25 GPA required for all AEB courses
- 2.0 UF GPA required

Semester 7

- Complete AEB 3550
- 2.0 upper division GPA required
- 2.25 GPA required for all AEB courses
- 2.0 UF GPA required

Semester 8

- 2.0 upper division GPA required
- 2.25 GPA required for all AEB courses
- 2.0 UF GPA required

~~Graduates choose from a vast number of career opportunities, including sales, marketing, management, environmental policy, international trade, international marketing, economic analysis, natural resource management and human resource management.~~

~~Students who have completed 30 credits but fewer than 60 are required to complete mathematics through precalculus (MAC 1147 or equivalent) before admission to the college.~~

~~Students who have completed 60 or more credits are required to have completed calculus (MAC 2233 or equivalent), statistics (STA 2023 or equivalent), financial accounting (ACG 2021 or equivalent) and macroeconomics (ECO 2013 or equivalent) with minimum grades of C before admission to the college.~~

~~Students should consult an advisor for approval of electives.~~

~~International Food and Resource Economics~~

~~This specialization provides a broad background in economic theory and international development and policy. Many who choose this specialization are preparing for graduate school or for careers working for international organizations and governments.~~

University of Florida

International Food and Resource Economics

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To remain on track, students must complete the appropriate critical-tracking courses, which appear in bold. These courses must be completed by the terms as listed above in the Critical Tracking criteria.

This semester plan represents an example progression through the major. Actual courses and course order may be different depending on the student's academic record and scheduling availability of courses. Prerequisites still apply.

Semester One		Credits
ECO 2013	Principles of Macroeconomics (Critical Tracking ; State Core Gen Ed Social and Behavioral Sciences)	4
MAC 1147	Algebra and Trigonometry (Gen Ed Mathematics; if needed, or select one elective)	4
Elective	Elective	<u>2</u>
State Core Gen Ed Biological or Physical Sciences ^{1,4}		3-4
State Core Gen Ed Composition ; Writing Requirement ²		3

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Credits		16-1715- 46
Semester Two		
Quest 1 (Gen Ed Humanities)		3
MAC 2233	Survey of Calculus 1 (Critical Tracking ; State Core Gen Ed Mathematics)	3
State Core Gen Ed Humanities ²		3
Gen Ed Composition; Writing Requirement ²		3
Civic Literacy Requirement – Select one:		3
POS 2041	American Federal Government (Gen Ed Social and Behavioral Sciences)	
AMH 2020	United States Since 1877 (Gen Ed Social and Behavioral Sciences)	
Credits		15
Semester Three		
Quest 2		3

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ACG 2021 Elective	Introduction to Financial Accounting (Critical Tracking)Elective	43
AEC 3033C	Research and Business Writing in Agricultural and Life Sciences (Writing Requirement)	3
STA 2023	Introduction to Statistics 1 (Critical Tracking ; Gen Ed Mathematics)	3
State Core Gen Ed Biological or Physical Sciences Gen Ed Biological or Physical Sciences ¹		3
Credits		16 15
Semester Four		
ACG 2071 or AEB 3122 ⁴	Introduction to Managerial Accounting or Financial Planning for Agribusiness	3-4
AEB 2935	Food and Resource Economics Seminar	2 1
AEB 3103	Principles of Food and Resource Economics (Gen Ed Social and Behavioral Sciences)	4
AEC 3030C	Effective Oral Communication	3
Gen Ed Biological-Chemistry or Physical Sciences ¹		3
Credits		14-15 16

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Semester Five		
AEB 2451	Economics of Resource Use	3
AEB 3300	Agricultural and Food Marketing	3
AEB2280	World Agricultural Policy	3
AEB 3133	Principles of Agribusiness Management	3
Elective		3
Credits		15
Semester Six		
AEB 3281	Agricultural Macroeconomics	3
AEB 3144	Introduction to Agricultural Finance	3
AEB 3510 AEB 3550	Quantitative Methods in Food and Resource Economics (Critical Tracking) Agricultural Data Analysis in Food and Resource Economics (Critical Tracking)	3
Approved International Food and Resource Economics elective		3

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Elective	3
Credits	15
Semester Seven	
Select one ⁴ :	3-4
AEB 4673	International Agricultural Trade
ECO 3704	International Trade
AEB 4242	International Trade Policy in Agriculture (Gen Ed Social and Behavioral Sciences)
Writing Requirement course	3
Approved International elective	3
Elective	3
Credits	15-16
Semester Eight	

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AEB 424 AEB 367 1	International Trade Policy in Agriculture (Gen Ed Social and Behavioral Sciences) Comparative World Agriculture (Gen Ed Social and Behavioral Sciences with International)	3
Select one ⁴ :		3-4
AEB 4334	Agricultural Price Analysis and Consumer Behavior	
AEB 4374	Advanced Agricultural Microeconomics ³	
ECO 3101	Intermediate Microeconomics ³	
AEB 4343	International Agribusiness Marketing (Gen Ed Social and Behavioral Sciences)	3
<u>Elective</u>	<u>Elective</u>	<u>3</u>
Approved International elective		3
Credits		14-15 <u>15-16</u>
Total Credits		120

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Plan of Study Grid

At least one science course (e.g., [SWS 3022L](#)) must include a laboratory component.

2

The order in which these courses are taken is not important.

3

Students ~~pursing~~[pursuing](#) graduate school should consider this option.

4

If you take the class with the lower number of credits, you will need to make up the credits with UF electives.

5

Quest 3 options within FRE include teaching, research, and internship experiences, student competitions (quizbowl and NAMA), and other 3-credit courses with the Quest 3 designation. Most of these courses are departmentally controlled so contact your academic advisor to enroll in these courses.