

CALS Curriculum Committee Meeting

August 21, 2026

McCarty Hall D Rm. 1044/1045

1:00 p.m.

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

Meeting ID : 355458614

Members: Z. Cheng, D. Coenen, T. Easterly, P. Inglett, T. Johns, M. Jones, M. Jordan, G. MacDonald, T. Martin, A. Mathews, H. McAuslane, G. Nunez, S. Saikumar, M. Smith, D. Vyas, H. Wan, P. Ward, A. Watson, J. Weeks (Chair), A. Wysocki

Agenda and Index for Materials

Approve Minutes of the April 24, 2026 meeting

Dr. Mathews: Update from UCC

Graduate New Course Proposals

1. ANS 6XXX – Animal Epigenetics (req. #21839)
2. EVR 6905 – Individual Work in Ecology and Environment (req. #22807)
3. EVR 6910 – Supervised Research in Ecology and Environment (req. #22804)
4. EVR 6912 – Non-thesis Project in Ecology and Environment (req. #22808)
5. PLP 6XXXC – Applied AI in Plant Health (req. #23063)

Graduate Course Modification Proposals

6. MCB 5942L – Clinical Microbiology Lab (req. #22897)
7. HOS 6331 – Postharvest Biology (req. #22940)

Undergraduate Course Modification Proposals

8. MCB 5945L – Clinical Experience in Microbiology (req. #22884)
9. PCB 4522 – Molecular Genetics (req. #21907)

Minor Modification

10. Proposed Change to the Bioinformatics Undergraduate Minor (req. #22843)

Information item

11. MCB 7922 – Journal Colloquy (req. #21879)
Increase in maximum repeatable credits

CALS Curriculum Committee Meeting
Minutes from April 24, 2026
Submitted by James Fant

Members Present: K. Braggs, D. Coenen, T. Easterly, B. Gankofskie, C. Haxton, P. Inglett, T. Johns, M. Jones, G. MacDonald, T. Martin, A. Mathews, H. McAuslane, G. Nunez, B. Schutzman, M. Smith, P. Ward

Visitors: Marc Hensel, Misti Sharp

Call to Order: The College of Agricultural and Life Sciences Curriculum Committee met in McCarty Hall D Rm. 1044/1045 on April 24, 2026. Dr. Coenen called the meeting to order at 1:27p.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 from the March 27, 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:

1. There were no CALS items on the UCC undergraduate agenda for April.

2. Quest, like Gen Ed, now must comply with the same BOG regulation. UF is reviewing all Q1 and Q2 courses. CALS had one course lose Q2 status: AOM 2063. Dr. Reyes is revising the course with the goal of reobtaining Q2 status.
3. No updates on Q3.
4. Study Abroad. Dr. Marta Wayne presented an overview of all of UF study abroad programs. Students reports very high ratings of characteristics that employers are looking for: adaptability, working with people from other cultures, initiative.
 1. 20% of UF UG students participate in study abroad (including exchanges and faculty led)
 2. Top 10 in US by # of students participating
 3. 76% are in Europe, only 3% in sub-Saharan Africa
 4. Goal to increase more programs to ascending population destinations – Latin America and sub-Saharan Africa. Encourage faculty to submit new programs to these areas.

Graduate New Course Proposals

1. ALS 6XXX – Paradigms of Integrative Ecology (req. #22741)

A motion was made by Dr. Easterly to approve this item with edits required. The motion was approved. Add the proposed class meeting times to the syllabus. Change the F in the grading scale to an E.

2. EVR 6XXX – Individual Work in Ecology and Environment (req. #22807)

This item was reviewed with items #3 and #4. A motion was made by Dr. Inglett to table these items. The motion was approved. An outside consultation with Soil and Water Sciences is requested. There is concern with the proposed prefix. It was suggested that Dr. Reddy discuss these course proposals with the dean.

3. EVR 6XXX – Supervised Research in Ecology and Environment (req. #22804)

See item #2.

4. EVR 6XXX – Non-Thesis Project in Ecology and Environment (req. #22808)

See item #2.

5. PLS 6XXX – Plant Breeding Journal Colloquium (req. #22485)

A motion was made by Dr. Inglett to approve this item with edits required. The motion was approved. The learning objectives need to be more directed towards plant breeding. The point ranges in the grading scale need to match the percentage ranges. For example, the point range for a B should be 80 to less than or equal to 84.99 if 85 is the low end for a B+. Below are additional comments from Teams:

<u>22485</u>	NEW COURSE: PLS 6XXX Plant Breeding Journal Colloquium	Matthew Smith, Gerardo Nunez, Tre Easterly, Adam Watson, Heather McAuslane
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Form Edits/Comments	Form and syllabus course descriptions should match. The one in the syllabus follows the current style requested (HJM) NOTE _ Anne updated form to match the syllabus. If this should be the other way around let me know.
Syllabus Edits/Comments	Looks good (HJM). Looks good- TE Maybe just clarify grading scale by adding clear cutoffs (i.e., B+ 85.0-89.99) -AW I agree with comments on the grading scale but found no other issues (MES)

Graduate Course Modification Proposals

6. FYC 6235 – Prevention Science in YDFS (req. #22718)

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

7. SWS 6722 – AI Modeling in Soil and Ecosystem Sciences (req. #22739)

A motion was made by Dr. Jones to recycle this item. The motion was approved. Add a weekly schedule to the syllabus. Include AI SLOs.

Curriculum Modification Proposals

8. Proposed Change to FRE Emphasis Food and Agribusiness Marketing and Management (req. #22813)

This item was reviewed with item #9. A motion was made by Dr. Gankofskie to approve these items as submitted. The motion was approved.

9. Proposed Change to FRE Emphasis International Food and Resource Economics (req. #22812)

See item #8.

The meeting was adjourned at **2:18** p.m.

Cover Sheet: Request 21839

XXX - ANIMAL EPIGENETICS

Info

Process	Course New Grad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Zongliang Jiang z.jiang1@ufl.edu
Created	8/26/2025 9:43:15 PM
Updated	8/19/2026 2:42:56 PM
Description of request	This grad course was discussed and approved by the dept grad committee and then by the faculty. I am now submitting for the next level of approval.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Animal Sciences 60090000	Jason Ferrell		8/27/2025
No document changes					
College	Recycled	CALS - College of Agricultural and Life Sciences	Anne Mathews	To review – the CALS committee also needs a completed syllabus checklist. On the checklist I think there a few items that need to be added to the syllabus – Course number – just put ANS 6XXX for now, class meeting times and location, and a reading list, which does not have to be all inclusive, but should be a good representation (required of all graduate courses if there is not a textbook). Also - the course description should ideally have the “This course...” language removed and just be more of a straightforward, almost fragmented statement of the course content and overall objective. I think there is a typo in the 2nd sentence as well – reaches should be teaches? If changes are made to the course description, please change in the submittal form as well.	9/17/2025
No document changes					
Department	Approved	CALS - Animal Sciences 60090000	Anne Mathews	Approve per email with Dr. Pringle as we add him to the approval system.	8/6/2026
CALS CC Checklist.pdf					8/6/2026
College	Pending	CALS - College of Agricultural and Life Sciences			8/6/2026
No document changes					

Step	Status	Group	User	Comment	Updated
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 21839

Info

Request: XXX - ANIMAL EPIGENETICS

Description of request: This grad course was discussed and approved by the dept grad committee and then by the faculty. I am now submitting for the next level of approval.

Submitter: Zongliang Jiang z.jiang1@ufl.edu

Created: 8/19/2026 3:06:25 PM

Form version: 5

Responses

Recommended Prefix ANS

Course Level 6

Course Number XXX

Lab Code None

Course Title Animal Epigenetics

Transcript Title Animal Epigenetics

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

Effective Term Fall

Effective Year 2027

Rotating Topic No

Repeatable Credit? No

Amount of Credit 3

S/U Only? No

Contact Type Regularly Scheduled

Course Type Lecture

Weekly Contact Hours 6.

3 hours of lectures and about 3 hours of office hours and communications, etc.

Course Description Animal Epigenetics course investigates how gene activity changes without altering the DNA sequence. Covers basic epigenetic mechanisms and the methodologies to analyze them, as well as their roles in reproduction, development, behavior, health, and inheritance in livestock species. Discusses application of epigenetic technologies in livestock reproduction, production, and disease research.

Prerequisites N/A

Students are expected to have a foundational understanding of biology, genetics, and molecular and cellular biology, as well as basic skills in reading and critically evaluating scientific literature, interpreting experimental data, and commu

Co-requisites N/A

Rationale for Placement in the Curriculum Graduate level

AMCB and ANS majors

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.****

Z.J 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.

N/A 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.

Z.J

_____ 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.

Z.J

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

Z.J

_____ 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.

Z.J

_____ 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/>.

Z.J _____ 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.)

Z.J

_____ 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.

Z.J

_____ 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.

Z.J

_____ 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)

APPROVAL NUMBER	ITEM	REVIEWERS	SUBMITTER/Instructor
21839	NEW: ANS6XXX Animal Epigenetics	<u>Diwakar Vyas, Tim Martin,</u> <u>Patrick Inglett, Savith</u> <u>Saikumar, Patrick Ward,</u> <u>Heather McAuslane</u>	Jiang Zongliang
Form Edits/Comments	Course description should be 50 words or less and use active verbs. Perhaps – Investigates how gene activity changes without altering the DNA sequence. Covers basic epigenetic mechanisms and methodologies to analyze them, as well as their roles in reproduction, development, behavior, health, and inheritance in livestock species. Discusses application of epigenetic technologies in livestock reproduction, production, and disease research. (HJM) - Effective term is Fall 2026 – Not possible given that classes start next week. Change to Spring 2027 (or Fall 2027, if this is meant to be a Fall-only course) (psw) - Weekly contact hours are listed as 6 for a 3-credit course, but there is no explanation why. (psw) - The description of the request provides more of a departmental history rather than an actual statement of what is being requested. This could be as simple as “Proposal for a new graduate course.” (psw) - Prerequisites: Okay to list “NA” for prerequisite courses, but might be useful to include a “statement of skills required prior to taking the course” under “Other course information” (psw)		Submitter Response: • Accepted the changes for the course description • Changed to Fall 2027 • This is for cover sheet, weekly contact hours should be 3 hours of lecture time and additional 3 hours of office hours and communications. • Changed the description of the request to “proposal for a new graduate course”. • Included a statement of the skills required prior to taking the course under “Other course information”.

Syllabus Edits/Comments	Exam totals do not equal 100 points – Anne After editing the form course description, make sure the syllabus has the same wording for the course description (HJM). No readings are located under the textbook, learning materials section. I do see that there is weekly paper discussion which I assume are the ones that would be assigned in a reading list. I would insert them under the learning materials heading...now I see that there is a reading list after the weekly course schedule. Move them to the learning materials section (HJM) Weekly course schedule (HJM) • Presentation – due in class (not on class) • I wouldn't put Exam 1 and Week 7 in each week. Maybe just put it in the course schedule during the week when the exam will be administered? • Week 15 – study for exam. Is this an in-class review period? Course grading structure section – is the presentation 30% or 33.3%? It would be easier to add to 100% by having each exam worth 35% and the presentation worth 30% (HJM) So students won't know if they are responsible for leading the discussion until they get into the classroom? Do you expect that all students will prepare a presentation on background, hypothesis etc...for each of the papers? You might instead assign a specific day to a student but add some grades for class participation so that there is an incentive to read the paper? (HJM) Add decimal places to the grading scale (at least one). 90.0 to 92.9, 93.0 to 100, etc... Weekly Course Schedule (Savitha) It might be helpful to include the actual dates for each week, based on the academic calendar, rather than listing only the week number. The due dates are little confusing since there are no specific assignments mentioned. I'm assuming these dates are for the exams. If that's the case, it may not be necessary to list them separately since the exams are already mentioned.	Submitter Response: • Corrected for 100 points total. • Confirmed the same course description. • Added the learning materials section. • Corrected the weekly course schedule as suggested. • Corrected to in-class review session. • Corrected the grading. • Added the class participation as suggested. The discussion topic will be assigned to each student at the beginning of the semester as suggested. • Corrected the grading scale. • Originally, I've listed actual dates, however, it changes from year to year. Instead, I was suggested to follow the standard syllabus and only include the week. It would be Monday (one period) /Wednesday (two periods). • I've addressed the due date issue. • Syllabus already carries Academic policies link and covers attendance and make-up work.
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	Including attendance policy would be helpful (Savitha) - For a 6000-level course, most of the SLOs sit at the lower level of Bloom's Taxonomy. Since roughly 1/3 of the grade is critical evaluation of primary literature, add an SLO that matches the assessment. (psw) - Syllabus lists "Exam 2 (Final Exam)" in Week 15. Since final exams can only be scheduled during the official final exam period, list this simply as "Exam 2" (psw) - Unmatched parentheses in grading structure: "Topic discussion (will be graded as follows (makes up 30% of final grade)." The open paren before "will be graded" should be removed. (psw) - Should there be a D- grade possible? (psw)	• Added one more SLO to match the evaluation of primary literature. • Changed the final exam to exam 2. • Corrected the grading structure. • Added a "D-".
Other Edits/Comments		Submitter Response:

ANS6XXX Animal Epigenetics

Fall semester, 2027
In-person, Three Credits

Dr. Zongliang (Carl) Jiang, Associate Professor

Office location: Cancer & Genetics Research Center 303

Telephone number: 352-273-6388

Email address: z.jiang1@ufl.edu

Office hours: Monday 10:45am -11:45am. In person or Zoom: <https://ufl.zoom.us/j/9527849151>.

Teaching Assistant

N/A

Course Description

Animal Epigenetics course investigates how gene activity changes without altering the DNA sequence. Covers basic epigenetic mechanisms and the methodologies to analyze them, as well as their roles in reproduction, development, behavior, health, and inheritance in livestock species. Discusses application of epigenetic technologies in livestock reproduction, production, and disease research.

Course Learning Objectives

The goal of this course is to provide students with the fundamental principles of epigenetics and their applications in livestock species. Students will gain knowledge of epigenetic regulation during development, reproduction, and disease, and develop the ability to critically evaluate and apply epigenetic concepts and technologies in livestock research and production.

Expectations and Student Learning Outcomes

Upon successful completion of this course, students should:

1. Describe in detail the epigenetic mechanisms and how they regulate gene expression.
2. Explain how epigenetic modifications are established and reprogrammed during gametogenesis, lineage specification and development, as well as somatic cell reprogramming.
3. Outline the steps of the methodologies for analyzing different epigenetic modifications.
4. Identify the far-reaching effects of environmental stress on epigenetic profiles and how this can manifest in embryo and fetal programming.
5. Explain interactions between epigenetics and the productive traits and disease, and how to edit epigenome in the context of livestock species.
6. Identify the new research areas relevant to epigenetic mechanisms that would improve their research dissertations.

7. Critically evaluate primary research literature in animal epigenetics by assessing experimental design, interpreting and integrating findings, identifying strengths and limitations, and formulating evidence-based conclusions.

Course Prerequisites

No prerequisite courses are required.

Other Course Information

Students are expected to have a foundational understanding of biology, genetics, and molecular and cellular biology, as well as basic skills in reading and critically evaluating scientific literature, interpreting experimental data, and communicating scientific concepts. No prior coursework in epigenetics is required.

Textbooks, Learning Materials, and Supply Fees

No textbook required. Various learning materials will be handed out during the semester or made available through Canvas.

Learning materials:

DNA methylation: Smith et al., Nature. PMID: 25079558.

Histone modification: Xia et al., Science. PMID: 31273069.

Chromatin dynamics: Wu et al., Nature. PMID: 27309802.

Small RNA and RNA modification: Shi et al., Nature Cell Biology. PMID: 33820973.

Histone variants: Ibarra-Morales et al., Nature Communications. PMID: 34853314.

Epigenetics in gametes: Guo et al., Nature. PMID: 25079557.

Epigenetics in early embryogenesis: Zhou et al., EMBO reports. PMID: 36779365.

Epigenetics in pluripotency and differentiation: Takahashi and Yamanaka, Cell. PMID: 16904174.

Epigenetics in SNCT (cloning): Yang et al., Nature genetics. PMID: 17325680. Yang et al., Nature Biotechnology. PMID: 17211406.

Genomic imprinting and XCI: Tan et al., PNAS. PMID: 26951653.

CRISPR and epigenetic editing: Morita et al., Nature Biotechnology. PMID: 27571369.

Epigenetic inheritance: Tomar et al., Nature. PMID: 38839949.

Epigenetic in livestock research: Rexroad et al., Front Genet. PMID: 31156693.

Communication Guidelines

Email will be used as the major method for communicating when not in class. Therefore, provide Dr. Jiang with your email address, if one is available. Dr. Jiang's email is z.jiang1@ufl.edu.

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
Week 1	Introduction		
Week 1	Gene regulation		
Week 1	Gene regulation (topic discussion assignment)	Presentation	Due in class
Week 2	DNA methylation		
Week 2	Laboratory molecular methodologies to analyze DNA methylation		
Week 2	DNA modification (topic discussion: Smith et al., Nature. PMID: 25079558)	Presentation	Due in class
Week 3	Histone modification		
Week 3	Laboratory molecular methodologies to analyze histone modification		
Week 3	Histone modification (topic discussion: Xia et al., Science. PMID: 31273069)	Presentation	Due in class
Week 4	Modifying chromatin		
Week 4	Laboratory molecular methodologies to analyze chromatin dynamics		
Week 4	Chromatin remodeling (topic discussion: Wu et al., Nature. PMID: 27309802)	Presentation	Due in class
Week 5	Small RNAs		
Week 5	Laboratory molecular methodologies to analyze small RNAs		
Week 5	Small RNAs (topic discussion: Shi et al., Nature Cell Biology. PMID: 33820973)	Presentation	Due in class
Week 6	Histone variants		
Week 6	Laboratory molecular methodologies to analyze histone variants		
Week 6	Histone variants (topic discussion: Ibarra-Morales et al., Nature Communications. PMID: 34853314)	Presentation	Due in class
Week 7	RNA modification (m6A)		
Week 7	Exam 1		
Week 8	Epigenetics in male reproduction: sperm		
Week 8	Epigenetics in female reproduction: oocyte		
Week 8	Epigenetics in gametogenesis (topic discussion: Guo et al., Nature. PMID: 25079557)	Presentation	Due in class
Week 9	Epigenetics in embryogenesis		
Week 9	Epigenetics in fetal programming		
Week 9	Epigenetic regulation in early development (topic discussion: Zhou et al., EMBO reports. PMID: 36779365)	Presentation	Due in class
Week 10	Epigenetics in pluripotency and differentiation		

Week	Topic	Assessment	Due Dates
Week 10	Nuclear reprogramming – SCNT (cloning) and iPSCs		
Week 10	Epigenetics in pluripotency and differentiation (topic discussion: Takahashi and Yamanaka, Cell. PMID: 16904174)	Presentation	Due in class
Week 11	Genomic imprinting		
Week 11	X chromosome inactivation		
Week 11	Genomic imprinting/XCI (topic discussion: Tan et al., PNAS. PMID: 26951653)	Presentation	Due in class
Week 12	Genome editing		
Week 12	CRISPR and epigenetic editing		
Week 12	CRISPR and epigenetic editing (topic discussion: Morita et al., Nature Biotechnology. PMID: 27571369)	Presentation	Due in class
Week 13	Epigenetics and diseases/productive traits		
Week 13	Epigenetic inheritance		
Week 13	Epigenetic inheritance (topic discussion: Tomar et al., Nature. PMID: 38839949)	Presentation	Due in class
Week 14	Epigenetics in livestock research		
Week 14	Epigenetics in livestock research (topic discussion: Rexroad et al., Front Genet. PMID: 31156693)	Presentation	Due in class
Week 14	Thanksgiving		
Week 15	In-class review session		
Week 15	Exam 2		

Note: The discussion papers will be updated each year by including the newly published research papers in the relevant topic.

Grading Policy

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

Course Grading Structure

Assignment Type	Point Value	Percent of Final Grade
Exam 1	100	35%
Exam 2	100	35%
Topic presentation/discussion	100	30%

Exams will primarily be essay, problem solving, and short answer questions. Exams will focus on material that is new since the last exam although it is expected that students will be familiar with concepts from the entire course. For each exam, the student will be able to select a specific number of questions to answer from a wider range of questions.

Topic discussion will be graded as follows (makes up 30% of final grade): Background/rationale/knowledge gaps/hypothesis/objective (20%), approach and results (20%), significant findings, limitations if any, and prospects (20%), Q & A section (20%), and class participation (20%). Note: Leaders of paper discussions will be assigned at the beginning of the semester. Particularly, the grading of class participation will ensure all students read the paper and participate the discussions and seek to understand it.

Make-up exam policy: A make-up examination will be offered only in cases of documented, unavoidable circumstances. Students are expected to contact the instructor before the exam/assessment whenever possible. The make-up exam may be oral or written and is not guaranteed to be identical to the original examination.

Grading Scale

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

Academic Policies and Resources

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

<https://go.ufl.edu/syllabuspolices>

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

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

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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.

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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.
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Course Communication

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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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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

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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.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](#)
- 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.

****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)

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
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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.

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penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

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 - [Instructure Privacy Policy](#)
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- 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 23063

PLP6### — Applied AI in Plant Health

Info

Process	Course New Grad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Jose Huguet Tapia jhuguet@ufl.edu
Created	7/14/2026 3:30:32 PM
Updated	7/30/2026 1:11:32 PM
Description of request	New Course: Applied AI in Plant Health (PLP6###) Purpose: Provide graduate students in plant pathology with practical artificial intelligence skills for research and diagnostics. The course covers AI fundamentals, deep learning, disease diagnosis, genomic analysis, and LLM applications with emphasis on real-world applications and ethics. Delivery Format: HyFlex (2 credits, Wednesday 3:00–4:55 PM, in-person or Zoom) Target Students: Graduate students in plant pathology and related disciplines.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Agricultural and Life Sciences - General 60030000	Anne Mathews	Approving on behalf of Dr. Mathews Paret per email on 7/30/2026.	7/30/2026
7_27_Applied_AI_PLP_in_CALS-Syllabus-Template.docx					7/29/2026
College	Pending	CALS - College of Agricultural and Life Sciences			7/30/2026
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 23063

Info

Request: PLP6### — Applied AI in Plant Health

Description of request: New Course: Applied AI in Plant Health (PLP6###)

Purpose:

Provide graduate students in plant pathology with practical artificial intelligence skills for research and diagnostics. The course covers AI fundamentals, deep learning, disease diagnosis, genomic analysis, and LLM applications with emphasis on real-world applications and ethics.

Delivery Format:

HyFlex (2 credits, Wednesday 3:00–4:55 PM, in-person or Zoom)

Target Students:

Graduate students in plant pathology and related disciplines.

Submitter: Jose Hugueta Tapia jhugueta@ufl.edu

Created: 7/14/2026 3:15:58 PM

Form version: 1

Responses

Recommended Prefix PLP

Course Level 6

Course Number XXX

Lab Code C

Course Title Applied AI in Plant Health

Transcript Title Applied AI in Plant Health

Delivery Method HB - Hybrid Blend (50-79% of course content taught outside of classroom)

Effective Term Fall

Effective Year 2026

Rotating Topic No

Repeatable Credit? Yes

Multiple Offerings in a Single Semester No

Amount of Credit 2

S/U Only? No

Contact Type Regularly Scheduled

Course Type Lecture

Weekly Contact Hours Synchronous Contact Hours: 1 hour 40 minutes per week

Lecture: 50 minutes (Wednesday Period 8, 3:00–3:50 PM)

Laboratory: 50 minutes (Wednesday Period 9, 4:05–4:55 PM)

Course Description Explores artificial intelligence applications for plant health, disease diagnosis, and pathogen detection. Covers AI techniques for analyzing genomic and phenotypic data, with emphasis on real-world research and diagnostic applications.

Prerequisites N/A.

Co-requisites N/A

Rationale for Placement in the Curriculum This course is an advanced offering that equips graduate students in plant pathology with practical AI and computational skills increasingly essential in modern plant research. Positioned as the second in a sequence with PLP6235C, it transitions from foundational concepts to applied practice, allowing students to develop analytical pipelines for disease diagnosis, pathogen detection, and genomic analysis. The course supports student research and prepares graduates for careers in academic research, extension, and industry where AI competencies are increasingly demanded.

Syllabus Content Requirements All Items Included



PLP6### [Applied AI in Plant Health]

Fall - 2026

Course Format: Hybrid-Flexible

Number of Credits : 2

Meeting Times & Course Format

Format: HyFlex (Hybrid-Flexible)

Class Schedule:

Lecture: Wednesday Period 8 (3:00–3:50 PM)

Laboratory: Wednesday Period 9 (4:05–4:55 PM)

Location: Fifield Hall 2564

Synchronous Attendance Options: Students may attend in-person or join via Zoom.

Off-campus students can access lectures and labs via Zoom link posted in Canvas each week. Attendance via either method is expected, but the choice is yours.

Instructor

Dr. Jose Huguet-Tapia

Room 1403 Fifield Hall

jhuguet@ufl.edu

352-273-4628

Office Hours : Monday 1:55 PM - 3:50 PM

Commented [AM1]: This template follows the [UF Syllabus Policy](#).

To maintain accessibility of the document as you adapt for your course, there is a short instructional video (https://cals.ufl.edu/content/PDF/Faculty_Staff/CALS-Syllabus-Tips.mp4)

And quick reference sheet for this template (https://cals.ufl.edu/content/PDF/Faculty_Staff/Syllabus-Accessibility-Quick-Reference.pdf)

Course Description

Explores artificial intelligence applications for plant health, disease diagnosis, and pathogen detection. Designed for graduate students in plant pathology and related plant health disciplines, it covers AI techniques for analyzing phenotypic and genomic data, with emphasis on real-world research and diagnostic applications in plant disease.

Course Overview and Purpose

This course is tailored for graduate students in plant pathology and related disciplines who are engaged in applying artificial intelligence (AI) to their research projects. While the course covers the foundations of AI, its main objective is to provide practical, case-specific guidance that students can adapt to their own research. Beyond the semester, the course also serves as an entry point for continued guidance from the instructor on AI applications within each student's area of research. It complements PLP6235C in the plant pathology graduate curriculum.

Course Learning Objectives

1. Explain foundational principles of artificial intelligence and how they apply to plant health.
2. Critically evaluate scientific literature on AI applications in plant health.

3. Apply AI-based image-analysis techniques to plant disease detection and diagnosis.
4. Evaluate the capabilities, limitations, and appropriate uses of generative AI tools for plant health tasks.
5. Analyze the ethical, legal, and societal implications of using AI in plant health.
6. Design, implement, and evaluate an analytical pipeline that uses AI to address a plant health problem.

Course Prerequisites

None. This course is the second in a sequence with PLP6235C, though prior completion is highly encouraged. STA 6093 and BSC6895C are also good complementary courses.

Recommended Background and Course Information

Students should have foundational knowledge in big data, "-omics" analysis, bioinformatics workflows, biology, plant health, and genetics. Familiarity with Python programming and basic AI concepts is recommended. Comfort with data analysis techniques and handling biological datasets is beneficial. Complementary courses include STA 6093 and BSC6895C.

Required Readings

A set of assigned scientific papers will serve as required readings for the course. These papers provide the foundational concepts for each lecture and form the basis for in-class discussion. All readings will be posted in Canvas.

1. Nyawose, T., Maswanganyi, R. C., & Khumalo, P. (2025). **A review on the detection of plant disease using machine learning and deep learning approaches**. *Journal of Imaging*, 11(10), 326. <https://doi.org/10.3390/jimaging11100326>
2. Jafar, A., Bibi, N., Naqvi, R. A., Sadeghi-Niaraki, A., & Jeong, D. (2024). **Revolutionizing agriculture with artificial intelligence: Plant disease detection methods, applications, and their limitations**. *Frontiers in Plant Science*, 15, 1356260. <https://doi.org/10.3389/fpls.2024.1356260>
3. Zhao, X., Wang, L., Zhang, Y., Han, X., Deveci, M., & Parmar, M. (2024). **A review of convolutional neural networks in computer vision**. *Artificial Intelligence Review*, 57(4), 99. <https://doi.org/10.1007/s10462-024-10721-6>
4. Wang, C. Y., Bochkovskiy, A., & Liao, H. Y. M. (2024). **YOLO advances to its genesis: A decadal and comprehensive review of the You Only Look Once (YOLO) series**. *Artificial Intelligence Review*, 57(8), 1–37. <https://doi.org/10.1007/s10462-025-11253-3>

5. Vaswani, A., Shazeer, N., Parmar, N., Uszkoreit, J., Jones, L., Gomez, A. N., Kaiser, Ł., & Polosukhin, I. (2017). **Attention is all you need**. Advances in Neural Information Processing Systems (NeurIPS), 30, 5998–6008. <https://arxiv.org/abs/1706.03762>
6. Gao, Y., Xiong, Y., Gao, X., Jia, K., Pan, J., Bi, Y., Dai, Y., Sun, J., Wang, M., & Wang, H. (2024). **Retrieval-Augmented Generation for Large Language Models: A Survey**. arXiv preprint arXiv:2312.10997. <https://arxiv.org/abs/2312.10997>
7. Abramson, J., Adler, J., Dunger, J., Evans, R., Green, T., Pritzel, A., Ronneberger, O., Willmore, L., Ballard, A. J., Bambrick, J., Barfuss, S. W., Bodenstein, D. A., Bradley, D. E., Bray, M. S., Brouley, B. J., Byrne, J., Buoninsegni, A., Bullock, C., Bunner, A., et al. (2024). **Accurate structure prediction of biomolecular interactions with AlphaFold 3**. Nature, 630(8016), 493–500. <https://doi.org/10.1038/s41586-024-07487-w>
8. Alexander, C. S., Yarborough, M., & Smith, A. (2024). **Who is responsible for 'responsible AI'? Navigating challenges to build trust in AI agriculture and food system technology**. Precision Agriculture, 25(1), 146–185. <https://doi.org/10.1007/s11119-023-10063-3>

Recommended supplementary resources

1. Chollet, F. **Deep Learning with Python**. Manning Publications. ISBN-13: 978-1617294433.

Commented [Smith, Ma2]: why not bold like the others?

Commented [JH3]: Fixed

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

Modules approximately correspond to one week of the course, but modules share connections and build across weeks of the course. This is subject to change based on whole-group progress through the course materials.

Week – Module	Activities	Assessment	Objectives Addressed ¹
Week 1 (Aug 26) – Module 1: Organizational Meeting and Intro to Google Colab Notebooks	Review of the Canvas site and syllabus; intro Q&A on using Canvas and Google Colab notebooks (Google's cloud-based Jupyter notebook environment).	Completion of Google Colab notebook exercises	—
Week 2 (Sep 2) – Module 2: Foundations of AI	Lecture on AI general concepts; Reading 1.	Pre- and post-quiz on AI concepts. Completion of Google Colab notebook exercises	1
Week 3 (Sep 9) – Module 3: Machine Learning in Plant Health	Lecture on ML concepts; Readings 1 and 2; Colab notebook tutorial with hands-on algorithm comparison.	Pre- and post-quiz on ML tools and frameworks. Completion of Google Colab notebook exercises	1, 3
Week 4 (Sep 16) – Module 4: Deep Learning in Plant Health	Lecture on deep learning; Readings 1 and 2; Colab notebook tutorial with a guided disease-detection pipeline build; exercise in Deep Playground.	Pre- and post-quiz on CNN concepts. Completion of Google Colab notebook exercises	1, 3
Week 5 (Sep 23) – Module 5: Disease Diagnosis I – Dataset Repositories (Vegetable Disease Images)	Lecture on dataset curation; Reading 3; hands-on dataset exploration and annotation exercise.	Completion of Google Colab notebook exercises	3
Week 6 (Sep 30) – Module 6: Disease Diagnosis II – Plant Disease Classification	Lecture on classification methods; Reading 3; hands-on training and	Pre- and post-quiz on	3

Commented [AM4]: Highly suggest adding actual dates to this table. It ensure you have matched to the most recent calendar. It is ok that not every semester is the same. Make it specific to the next semester it will be taught.

¹ Numbers correspond to the Course Objectives listed above (1–6).

Week – Module	Activities	Assessment	Objectives Addressed ¹
	evaluation of a classification model.	classification models. Completion of Google Colab notebook exercises	
Week 6 (Sep 30) – Assignment 1 Assigned	Assignment 1 handed out to students.	—	3, 4
Week 7 (Oct 7) – Module 7: Case Study 1 – Plant Disease Identification and Classification	Lecture on YOLO; Reading 4; hands-on testing and evaluation of YOLO for leaf-disease identification and classification.	Pre- and post-quiz on YOLO and detection techniques. Completion of Google Colab notebook exercises	2, 3
Week 7 (Oct 7) – Assignment 1 Due	—	Assignment 1 submitted.	
Week 8 (Oct 14) – Module 8: Case Study 2 – Classification of Microstructures	Lecture on microstructure classification; Reading 4; hands-on feature extraction and model training with YOLO.	Pre- and post-quiz on microstructure classification. Completion of Google Colab notebook exercises	2, 3
Week 9 (Oct 21) – Assignment 2 Assigned	Assignment 2 handed out to students.	—	6
Week 9 (Oct 21) – Module 9: Large Language Models	Lecture on transformers and LLMs; Reading 5.	Pre- and post-quiz on LLM concepts. Completion of Google Colab notebook exercises	1, 4
Week 10 (Oct 28) – Module 10: Beyond the Chatbot –	Lecture on RAG, agents, and MCP as ways of	Pre- and post-quiz on RAG,	4

Commented [AM4]: Highly suggest adding actual dates to this table. It ensure you have matched to the most recent calendar. It is ok that not every semester is the same. Make it specific to the next semester it will be taught.

Week – Module	Activities	Assessment	Objectives Addressed ¹
RAG, Agents, and MCP in Plant Health	extending LLMs beyond chat; Reading 6; hands-on demo of a RAG or agent-based workflow.	agents, and MCP concepts. Completion of Google Colab notebook exercises	
Week 11 (Nov 4) – Module 11: AI Models for Protein Folding and Interaction (AF3)	Lecture on protein-structure prediction; Reading 7; hands-on prediction and visualization of protein structures using the AF3 Server.	Pre- and post-quiz on protein-structure prediction. Completion of Google Colab notebook exercises	3
Week 12 (Nov 18) – Module 12: Ethics and Future Directions in AI	Lecture on AI ethics; Reading 8; group discussion on responsible AI use.	Pre- and post-quiz on AI ethics. Completion of Google Colab notebook exercises	5
Weeks 13–15 (Dec 2-9): Final Project Presentations (Assignment 2)	Project work sessions and peer-feedback rounds, culminating in presentations.	Final project report and presentation.	4, 5, 6

Commented [AM4]: Highly suggest adding actual dates to this table. It ensure you have matched to the most recent calendar. It is ok that not every semester is the same. Make it specific to the next semester it will be taught.

Key to abbreviations: AI = artificial intelligence; ML = machine learning; CNN = convolutional neural network; YOLO = You Only Look Once; LLM = large language model; RAG = retrieval-augmented generation; MCP = Model Context Protocol; AF3 = AlphaFold 3.

Grading Policy

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

Course Grading Structure

Grading is based on quizzes, two assignments, and one presentation as outlined below.

Quizzes — 10 points

Short quizzes will be posted in Canvas for most modules — one pre-quiz and one post-quiz each, for a total of 20 quizzes (10 pre and 10 post) worth 0.5 points each. Quizzes

assess your understanding of each module's material. Completion of all quizzes is required and will be graded on accuracy.

Assignment 1 — Dataset Analysis — 25 points

Upon completion of Module 6, students will analyze a provided dataset and answer a set of guided questions based on their analysis. The questions are designed to assess understanding of the analytical process, the tools applied, and the interpretation of results. Responses must be submitted through Canvas along with a recorded video walkthrough of the analysis.

Assignment 2 — Mini-Project — 35 points

Students will design and execute a mini-project using either a provided dataset or a dataset of their own choosing (subject to instructor approval). The goal is to develop an analytical pipeline, conduct a preliminary analysis, and generate initial results.

Submission: Written report detailing the methodology, results, and interpretation.

Presentation — 30 points

The presentation is based on the work completed in Assignment 2. Students are expected to clearly communicate their pipeline design, analytical choices, and findings to the class. Grading will consider clarity of explanation, scientific justification of decisions made, and quality of the overall presentation. Presentation could be in person or recorded video.

Component	Points
Quizzes	10
Assignment 1	25
Assignment 2	35
Presentation	30
Total	100

Grading Scale

In accordance with the current University of Florida policy, grade points will be assigned as follows

Letter Grade	Percent of Total Points Associated with Each Letter Grade	GPA Impact of Each Letter Grade
A	93.00-100%	4.0
A-	90.00-92.99%	3.67
B+	87.00-89.99%	3.33
B	83.00-86.99%	3.0

B-	80.00-82.99%	2.67
C+	77.00-79.99%	2.33
C	73.00-76.99%	2.0
C-	70.00-72.99%	1.67
D+	67.00-69.99%	1.33
D	63.00-66.99%	1.0
D-	60.00-62.99%	0.67
E	0-59.99%	0

Use of Generative AI in the Course

This course encourages the use of AI tools to complement learning.

Students are allowed to use AI for:

- Brainstorming ideas and refining concepts.
- Exploring different approaches to problem-solving.
- Assisting with coding and debugging.
- Enhancing understanding through interactive AI discussions.

To ensure comprehension and originality, students are required to:

- Present their work orally (in recorded video files or oral presentation in class) to demonstrate their understanding.
- Incorporate AI interactions as part of their presentation to showcase critical thinking.
- Discuss AI-generated insights and refine them through logical reasoning.

By incorporating AI into learning while emphasizing critical analysis and personal interpretation, students will strengthen their understanding and develop problem-solving skills in AI applications. **Any detected instance of simple copy-and-paste from a generative AI, without personal interpretation or critical reasoning, will be considered inadequate and will not be evaluated by the instructor**

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.

Commented [Smith, Ma5]: above you just refer to general 'chatbots' but here you are specific. maybe define chatbots above and give examples at first use and then use that generic term throughout?

Commented [JH5R2]: I modified and used chatbots as general terminology

Commented [AM6]: UF has moved to a new online repository of academic policies at <https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>. This includes Attendance and Makeup Work; Academic Accommodations; Grading Policies; Course Evaluation and Feedback; Honesty Policy; In-Class Recording Policy; Academic Resources; and some Campus Health and Wellness. You may use this "Academic Policies and Resources" heading and link in place of the above UF sections. CALS encourages you to keep the Campus Health and Wellness Resources section in this syllabus template because UMatterWeCare is outlined here, and not currently on the UF web page.

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 22897

Clinical Microbiology Lab MCB5942L - reduce to 1CR

Info

Process	Course Modify 5000 Ugrad/Grad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Monika Oli moli@ufl.edu
Created	5/10/2026 8:10:45 AM
Updated	8/13/2026 3:43:25 PM
Description of request	We are formally requesting a reduction in the credit hours for MCB5942L from two credits to one credit to better align the course designation with the actual student workload.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Microbiology and Cell Science 60100000	Eric Triplett		5/10/2026
No document changes					
College	Pending	CALS - College of Agricultural and Life Sciences			5/10/2026
No document changes					
Graduate Curriculum Committee					
No document changes					
University Curriculum Committee					
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Catalog					
No document changes					
Graduate Catalog Notified					
No document changes					
Student Academic Support System					
No document changes					
College Notified					
No document changes					

Modify Course Request (v.2026) for request 22897

Info

Request: Clinical Microbiology Lab MCB5942L - reduce to 1CR

Description of request: We are formally requesting a reduction in the credit hours for MCB5942L from two credits to one credit to better align the course designation with the actual student workload.

Submitter: Monika Oli moli@ufl.edu

Created: 5/10/2026 8:00:20 AM

Form version: 1

Responses

Current Prefix MCB

Course Level 5

Number 942

Lab Code L

Course Title Clinical Microbiology Lab

Effective Term Earliest Available

Effective Year Earliest Available

Requested Action Other (selecting this option opens additional form fields below)

Change Course Prefix? No

Change Course Level? No

Change Course Number? No

Change Lab Code? No

Change Course Title? No

Change Transcript Title? No

Change Credit Hours? Yes

Current Credit Hours 2

Proposed Credit Hours 1

Change Variable Credit? No

Change S/U Only? No

Change Contact Type? No

Course Type Internship

Change Rotating Topic Designation? No

Change Repeatable Credit? No

Multiple Offerings in a Single Semester No

Change Course Description? No

Change Course Objectives No

Change Prerequisites? No

Change Co-requisites? No

Rationale We are formally requesting a reduction in the credit hours for MCB5942L from two credits to one credit to better align the course designation with the actual student workload.

MCB5942L serves as the Clinical Microbiology Lab course of our CML graduate certificate, consisting of a 5-day lab bootcamp supplemented by online coursework. The current volume of online activities, however, does not justify a two-credit weight.

The online assignments and examinations administered via Canvas are primarily designed to prepare students for the clinical bootcamp lab. Because the lab builds upon material students have already learned in the other lecture classes within the certificate program, the required time investment is significantly reduced. Adjusting MCB5942L to 1 credit accurately represents this focused, bootcamp laboratory experience without compromising the program's rigor.

Clinical Microbiology Lab

MCB5942L

Contact information

Instructor: Dr. Monika Oli (moli@ufl.edu) 352-392-8434.

Office: Microbiology and cell science department, Room 1049.

Office hours: 12:00pm – 1:00pm (Monday).

Course time and location

Labs will be held in the lab space in the Microbiology and Cell Science Building, Museum Drive. This is a 2-credits course, two 3-hours meetings per week, that is offered in Spring and Fall semesters. Physical presence is mandatory. The course will be also offered during the summer C semester with a mandatory physical attendance of a 5-day bootcamp lab.

Lab Course Fee

\$330

Course prerequisites

One undergraduate microbiology course with lab; enrolled Clinical Laboratory Microbiologist (CLM) student or permission of the instructor

Welcome!

Welcome to the Clinical Microbiology Laboratory course, where theory meets practice in the exploration of microscopic life. This hands-on course is designed to equip you with essential laboratory skills used in clinical and medical microbiology labs for identifying and studying pathogenic bacteria, viruses, fungi, and parasites. Through a series of practical experiments and techniques, you will learn to culture, isolate, and analyze microorganisms, as well as understand their roles in human disease. Emphasizing safety, precision, and critical thinking, this course will prepare you for advanced work in clinical and research settings. Get ready to dive into the microscopic world and uncover the vital interplay between microbes and human health.

Course description

The Clinical Microbiology Laboratory course is a hands-on exploration of the microorganisms that play a pivotal role in human health and disease. Designed for students pursuing careers in healthcare, research, or clinical laboratory science, this course emphasizes practical skills and real-world applications. You will engage in a

variety of laboratory techniques to culture, identify, and analyze bacteria, viruses, fungi, and parasites.

Course overview

The Clinical Microbiology Laboratory course provides an in-depth, hands-on exploration of the microorganisms that play a pivotal role in human health and disease. Designed for students pursuing careers in healthcare, research, or clinical laboratory science, this course emphasizes practical skills and real-world applications. You will engage in a variety of laboratory techniques to culture, identify, and analyze bacteria, viruses, fungi, and parasites.

The course is structured around weekly lab sessions, each focusing on specific methodologies such as microscopy, staining techniques, biochemical testing, and molecular diagnostics. Through these sessions, you will not only master technical procedures but also develop the ability to interpret and troubleshoot experimental results. Emphasis is placed on laboratory safety and the importance of maintaining a contamination-free environment.

By integrating theoretical knowledge with practical experience, this course aims to foster a comprehensive understanding of microbial pathogenesis, the immune response, and the principles of infection control. Whether your goal is to work in a clinical laboratory, pursue medical research, or further your education in microbiology, this course will provide you with the essential skills and knowledge to succeed in the dynamic field of medical/clinical microbiology.

What you will know at the end of the course

After successfully completing the Clinical Microbiology Laboratory course, the student will demonstrate ability in the following categories:

Laboratory Safety

1. Explain the key principles and guidelines associated with different biosafety levels to ensure a secure laboratory environment.
2. Describe the procedures for proper sterilization and disinfection of laboratory equipment and workspaces to prevent contamination and infection.
3. Summarize the steps involved in identifying potential hazards and managing biological specimens safely in the laboratory setting

Laboratory Skills

1. Explain the principles and practices of aseptic technique in the handling and culturing of microorganisms to prevent contamination.
2. Summarize the process and conditions required for culturing various microorganisms using different media.
3. Describe the staining methods, such as Gram staining and acid-fast staining, and their applications in microscopy for observing microorganisms.
4. Discuss the biochemical and molecular diagnostic techniques, including PCR and mass spectrometry, for the identification of microorganisms.

Laboratory Thinking Skills

1. Analyze experimental data to draw conclusions about microbial identification and characteristics.
2. Evaluate troubleshooting strategies to address unexpected results in experimental procedures.

3. Explain the reliability and validity of laboratory results for their implications in clinical and research contexts.
4. Value the integration of theoretical concepts with practical findings to understand microbial pathogenesis and its impact on human health.

Required Textbook and lab materials

- Laboratory Manual: Diagnostic Microbiology Principles, materials will be provided in canvas
- Bailey & Scott Diagnostic Microbiology, 15th Ed., Tille, Patricia, Elsevier (Mosby) Inc. (ISBN: 987-0323354820). Readings assigned in the weekly syllabus

Course objectives

- **Develop Laboratory Skills:** Acquire proficiency in fundamental microbiological techniques, including aseptic handling, culturing, staining, and microscopic examination of microorganisms.
- **Diagnostic Proficiency:** Learn to perform and interpret various diagnostic tests to identify pathogenic microorganisms, understanding their clinical significance in human diseases.
- **Safety and Compliance:** Explain and apply laboratory safety protocols and biosafety guidelines to ensure a safe working environment and prevent contamination and infection.
- **Critical Analysis:** Enhance critical thinking and analytical skills by interpreting experimental data, troubleshooting laboratory procedures, and evaluating the reliability and validity of results.
- **Integration of Knowledge:** Integrate theoretical knowledge with practical skills to understand the interactions between microorganisms and human hosts and apply this understanding to real-world clinical and research scenarios.

Getting started

All course correspondence as well as lab assignments, exams and discussions will be available via eLearning Canvas Website <https://elearning.ufl.edu/> . You may also contact the UF help desk at 352-392-HELP, option 2.

Your section specific site is maintained and administered by your instructor. You are responsible for the material posted in your section.

Please Remember to check the Announcements and Mail each day in Canvas. “I did not know about the assignment, deadline...” is NOT an accepted excuse. For this course there are two Canvas sites for the course. Your instructor will have his/her own Canvas webpage where section specific information will be posted.

Please bring your laptop computer or tablet to each lab. We often will do computer-based exercises. Bring a camera, cell phone or tablet to take pictures of your lab results.

All assignments, projects and reports are expected to be submitted electronically through Canvas. Each assignment is processed through Turnitin.com and as such is checked for plagiarism. Draft Coach can be used to review and refine written work to check for originality prior to submission.

Attendance is mandatory. Each day new techniques are taught, and it is easy to fall behind! Arriving late and not coming to class without an excused absence will affect your attendance and participation and lab etiquette grade (up to 10%)

Have a Question? Please come see us - we are here to help!

Expectations of the students

Read the **Syllabus** to know your deadlines and exam schedules. Your Instructor however will announce specific days for your own section so **PAY ATTENTION!**

As a student, you are expected to fully **engage yourself** in all aspects of the class.

You are expected to **COME PREPARED** to class and have read the assigned reading material and especially watched the introductory videos.

You are expected to **always FOLLOW OUR LAB ETIQUETTE** (see next chapter). You must respect the potential pathogens we are working with.

Most importantly: ENJOY THE LAB!

Evaluation of learning

Learning will be evaluated based on the following criteria:

- Attendance and participation - 5% (25 points)

Attendance to all laboratory sessions is mandatory and your instructor will record attendance. Should a conflict arise, notify your lab instructor in advance if possible and find arrangements to make up the missed material and quizzes. Unexcused absences will result in a zero for that day's attendance. You must e-mail your instructor within 24h before/after the missed lab to qualify for makeup opportunity and provide valid written excuse.

- Quizzes – 20% (100 points)

After watching the lectures of a chapter, students will have to answer an open book quiz. Quizzes can include videos to be watched or required readings before class. All quizzes are cumulative.

- Group presentation - 25% (125 points)

At the end of the semester, students will present a case study given by the instructor, in which the students should demonstrate the proper diagnosis methods to identify the pathogen causing the disease, as well as possible treatment. The presentations will be in group of up to 6 students and should be presented in PowerPoint format. All students must participate in the presentation.

- Electronic lab notebook – 10% (50 points)

Students will keep an electronic lab notebook (ELN), which contains all your results, answers to questions, projects, observations, etc. This will help you to understand the material better. Students can add any information into the ELN. Depending on your Instructor you may be asked to comply with a particular format. In general, your ELN should include the following:

- ✓ Detailed explanation of the concepts being learned that day
- ✓ Key terms/Vocabulary
- ✓ A proper protocol
- ✓ Data in the form of pictures, graphs, tables, etc.
- ✓ Results
- ✓ Conclusion
- Exams - 40% (200 points)

Four exams are scheduled throughout the semester for this course 50 points each). Exams are designed to test your knowledge of practical skills learned in class and determine comprehension of the learned material. For the exam you can make your own “cheat sheet” to help you with procedures etc. Your cheat sheet can contain procedures, examples, explanations, images, formulas, or anything else that helps you to be successful during the exam. Exams will be proctored and taken online. Practical component: a large part of the exam is comprised of a practical exam where you must perform the skills and techniques learned in this class. Details for each examination will be explained and discussed by your instructor. Violation of the [student conduct code](#) will be report to the Dean of Students Office (DSO).

<i>Items graded</i>	<i>Points</i>	<i>%</i>
<i>Attendance</i>	25	5
<i>Quizzes</i>	100	20
<i>Group presentation</i>	125	25
<i>ELNs</i>	50	10
<i>Exams</i>	200	40
Total	500	100

We don't curve and the grading scale will not be adjusted based on class performance. You will have 2 weeks to challenge your grade and request a change of grade by contacting the course's instructor.

Final grades will be based on the following performance standard:

>92.0%	A	>72.0%	C
>90.0%	A-	>70.0%	C-
>87.0%	B+	>67.0%	D+
>82.0%	B	>62.0%	D
>80.0%	B-	>60.0%	D-
>77.0%	C+	<60.0%	E

Make-up policy

We will work with you if you provide us with a UF accepted excuse for your absence during labs or the exam.

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx> .We do accept school and career interviews and tests (MCAT, GRE, DAT) as excused absence - if you provide a written note or invitation to BEFORE your absence. You will work with your instructor to makeup missed work. Remember: open lab is NOT intended for makeup as there will be no actual instructor.

Seating

Please take the same seat in each class period. We will make notice of your location in the room, and you will work with your lab partner on several projects.

Biosafety in the Microbiology Laboratory

We are regulated and inspected annually by the UF Environmental Health and Safety Department. We follow their guidelines - and you follow our instructions - to prevent any

accidents and problems with contamination. For more information about the regulations go to: <http://www.ehs.ufl.edu/Lab/EHSintro.htm>

To comply with the University of Florida biosafety requirements closed toed shoes are mandatory in the laboratory. You can leave a pair in your locker, so you don't forget. Disposable lab coats will be provided to you on the first day of class. It is mandatory to always wear them. Write your names on your coats and keep them in your lockers. Do not take them home. Do not take anyone else's' coat. Lab coats will be autoclaved and disposed according to UF regulations on the last day of the semester.

Underlying medical conditions

If you have any underlying medical conditions which can affect your immune system or make you more susceptible to infectious disease, you must inform your instructor and consult with your physician before working in the microbiology laboratory.

For students and Instructor with preexisting conditions, including pregnancy, taking immunosuppressive drugs, or who have other medical conditions (e.g., diabetes, immune system disorder) that might necessitate special precautions, and it is recommended that they get medical clearance from the infirmary. <http://shcc.ufl.edu/>

If you notice any unusual symptoms or of any spills or accidents occur, contact your instructor immediately.

Artificial Intelligence (AI) Statement

Use of Artificial Intelligence In academic work

As a class, we will be exploring the use of artificial intelligence (AI) as a tool to facilitate idea generation, organization, and research. AI-powered tools, such as language generators and citation managers, can be useful for creating outlines, definitions, and even assisting with literature reviews. However, I want to emphasize that AI should be used as a supplement to, not a replacement for, human critical thinking and analysis.

When using AI, it's essential to employ a critical eye and not rely solely on its output. While AI can provide suggestions and ideas, it is not infallible and can produce errors or incomplete information. To ensure the accuracy and integrity of your work, please:

- Verify the credibility and reliability of AI-generated sources
- Use AI as a starting point for your research and analysis, not a finish line
- Complement AI output with your own critical thinking and analysis
- Properly cite and acknowledge AI-generated content

To support your academic work, I encourage you to use AI tools for tasks such as creating outlines, organizing research papers, and formatting citations. However, avoid using AI to answer questions or complete assignments that require original thought or critical analysis. Instead, use AI to prepare for class discussions, brainstorm ideas, and refine your understanding of complex concepts.

By using AI thoughtfully and responsibly, you will enhance your productivity, creativity, and academic success. If you have any questions or concerns about the use of AI in this course, please don't hesitate to reach out to me.

- Make sure you always cite and acknowledge AI-generated content properly.
- Prohibited Use Cases:
 - Using AI to complete assignments or projects without human critical analysis.
 - Relying solely on AI-generated content for research or analysis.
 - Presenting AI-generated content as original work without proper citation.

By following these guidelines, you will ensure that AI is used as a constructive and responsible tool to support your academic success.

UF Syllabus Statements

Grades and Grade Points

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

Attendance and Make-Up Work

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

Accommodations for Students with Disabilities:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. See the “[Get Started With the DRC](#)” webpage on the Disability Resource Center site. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal education use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and deliver by an instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentation such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between

students in the class or between a student and the faculty or guest lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless, of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

For online course with recorded materials the following policy applies:

Our class sessions may be audio visually recorded for students in the class to refer 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.

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. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals.

Guidance on how to give feedback in a professional and respectful manner is available at: <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty

UF students are bound by The Honor Pledge which states “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Conduct Code specifies a number of behaviors that are in

violation of this code and the possible sanctions. See the [UF Conduct Code website for more information](#). If you have any questions or concerns, please consult with the instructor or TAs in this class.

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). 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: (New Link: <https://policy.ufl.edu/regulation/4-040/>)

Software Use:

All faculty, staff and students at 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.

Campus Helping Resources

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

Whole Gator App

The Whole Gator and website and app connects UF students with resources dedicated to supporting overall health and well-being. In addition to many of the resources below it also has strategies to practice self-care. <https://one.ufl.edu/whole-gator/topics>

Health and Wellness

- **U Matter, We Care:** If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.
- **Counseling and Wellness Center:** [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.
- **Student Health Care Center:** Call 352-392-1161 for 24/7 information to help you find the care you need, or [visit the Student Health Care Center website](#).
- **University Police Department:** [Visit UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).
- **UF Health Shands Emergency Room / Trauma Center:** For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road,

Gainesville, FL 32608; Visit the [UF Health Emergency Room and Trauma Center website](#).

- GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the [GatorWell website](#) or call 352-273- 4450.
-
- Student Success Initiative, <http://studentsuccess.ufl.edu>.

Academic Resources

- E-learning technical support: Contact the [UF Computing Help Desk](#) at 352-392-4357 or via e-mail at helpdesk@ufl.edu.
- Career Connections Center: Reitz Union Suite 1300, 352-392- 1601. Career assistance and counseling services.
- Library Support: Various ways to receive assistance with respect to using the libraries or finding resources. Call 866-281-6309 or email ask@ufl.libanswers.com for more information.
- Teaching Center: 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- Writing Studio: Daytime (9:30am-3:30pm): 2215 Turlington Hall, 352-846-1138 | Evening (5:00pm-7:00pm): 1545 W University Avenue (Library West, Rm. 339). Help brainstorming, formatting, and writing papers.
- Academic Complaints: Office of the Ombuds; Visit the [Complaint Portal webpage](#) for more information.
- Enrollment Management Complaints (Registrar, Financial Aid, Admissions): View the [Student Complaint Procedure webpage](#) for more information.

Student Complaints:

- Residential Course: <https://www.ombuds.ufl.edu/complaint-portal/>
- Online Course: <https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint>

Generic weekly schedule

Fall 2025	Week	Topic	Reading and Assessment
8/25/2025	Week 1	Introduction:	Chapter 4, 7

		Introduction to clinical microbiology and lab safety; Human microbiome in Health and disease; Sterilization, disinfection, and antisepsis General principles of laboratory diagnosis: Streak plate method, bacterial growth, microscopy. Microscopy and <i>in vitro</i> culture: Gram staining. Media preparation: Mueller-Hinton agar, Sabouraud dextrose agar, MacConkey agar, Mannitol salt agar, Xylose-lysine deoxycholate agar, CHROMagar, SIM agar.	
9/1/2025	Week 2	Bacteriology part 1 - Clinical diseases and laboratory diagnosis Specimen collection, transport and processing: blood, cerebrospinal fluid, upper and lower respiratory tract specimens, ear and eye samples, wound, abscesses and tissues, urine, genital specimens, fecal specimens. Laboratory diagnosis: <i>Staphylococcus</i>, <i>Streptococcus</i> and <i>Enterococcus</i> species.	Chapter 5 Quiz 1
9/8/2025	Week 3	Bacteriology part 2 - Clinical diseases and laboratory diagnosis Laboratory diagnosis: <i>Bacillus</i>, <i>Listeria</i> and related Gram-positive bacteria. <i>Mycobacterium</i> and related acid-fast bacteria. Ziehl-Neelsen staining. <i>Neisseria</i> and related genera. <i>Haemophilus</i> and related bacteria.	Chapter 15
9/15/2025	Week 4	Bacteriology part 3 - Clinical diseases and laboratory diagnosis Laboratory diagnosis: Enterobacteriaceae, <i>Vibrio</i> and related bacteria.	Chapter 19 Quiz 2
9/22/2025	Week 5	Bacteriology part 4 - Clinical diseases and laboratory diagnosis Laboratory diagnosis: <i>Treponema</i>, <i>Borrelia</i>, <i>Leptospira</i> - Immunofluorescence. <i>Chlamydia</i> – immunofluorescence, cytopathology. Antibiotic susceptibility testing: disc diffusion and gradient test. Traditional antibiogram vs automated.	Chapter 10
		EXAM 1, online proctored	
9/29/2025	Week 6	Mycology part 1 - introduction Fungal classification, structure, and replication. Role of fungi in disease. Media preparation and micro-culture of fungi. Specimen collection and processing.	Chapter 58 Quiz 3

10/6/2025	Week 7	Mycology part 2 - Clinical diseases and laboratory diagnosis Classification of fungal infections (mycosis): Superficial and cutaneous, Subcutaneous, Systemic and Opportunistic mycoses. Pathogen identification: KOH preparation and lactophenol cotton blue staining. Identification of fungi via mass spectrometry.	Chapter 46 Quiz 4
		Exam 2, online proctored	
10/13/2025	Week 8	Parasitology part 1 - introduction Parasitic classification, structure, and replication. Laboratory diagnosis of parasitic disease. Antiparasitic agents.	
10/20/2025	Week 9	Parasitology part 2 - Clinical diseases and laboratory diagnosis Laboratory diagnosis: Intestinal parasites. Wet mount examination. Flotation and sedimentation methods. Trichrome and iron hematoxylin stains.	Chapter 64 Quiz 5
10/27/2025	Week 10	Parasitology part 3 - Clinical diseases and laboratory diagnosis Laboratory diagnosis: blood and tissue parasites. Thick and thin blood smear. Giemsa, Wright's, Hematoxylin and Eosin, and Leishman stains. ELISA and Immunofluorescence.	
		EXAM 3, online proctored	
11/3/2025	Week 11	Virology part 1 - introduction Viral classification, structure, and replication. Role of viruses in disease. Virus cultivation and quantification. Plaque assays. Immunological diagnostics.	Chapter 64 Quiz 5
11/10/2025	Week 12	Virology part 2: Laboratory diagnosis: Serological methods for viral detection. Western blot. Cell culture.	
11/17/2025	Week 13	Virology part 3: Laboratory diagnosis: Polymerase Chain Reaction (PCR). Agglutination tests. Immunochromatography.	

		Exam 4, online proctored
11/24/2025		Thanksgiving Break
11/25/2025	Week 14	Case study presentations

All quizzes are due Sunday at 11:59pm of that week.

All exams are open for 48h (Friday 00:01am to Saturday 11:59pm)

This textbook is also used for all lecture course in the program

Chapters for Bailey and Scott's Diagnostic

Microbiology, 15th Edition

Chapter 01 - Microbial Taxonomy

Chapter 02 - Bacterial Genetics, Metabolism, and Structure

Chapter 03 - Host-Microorganism Interactions

Chapter 04 - Laboratory Safety

Chapter 05 - Specimen Management

Chapter 06 - Role of Microscopy

Chapter 07 - Overview of Conventional Cultivation and Systems for Identification

Chapter 08 - Nucleic Acid-Based Analytic Methods for Microbial Identification and Characterization

Chapter 09 - Overview of Immunochemical Methods Used for Organism Detection

Chapter 10 - Principles of Antimicrobial Action and Resistance

Chapter 11 - Laboratory Methods and Strategies for Antimicrobial Susceptibility Testing

Chapter 12 - Overview of Bacterial Identification Methods and Strategies

Chapter 13 - Staphylococcus, Micrococcus, and Similar Organisms

Chapter 14 - Streptococcus, Enterococcus, and Similar Organisms

Chapter 15 - Bacillus and Similar Organisms

Chapter 16 - Listeria, Corynebacterium, and Similar Organisms

Chapter 17 - Erysipelothrix, Lactobacillus, and Similar Organisms

Chapter 18 - Nocardia, Streptomyces, Rhodococcus, and Similar Organisms

Chapter 19 - Enterobacterales

Chapter 20 - Acinetobacter, Stenotrophomonas, and Other Organisms

Chapter 21 - Pseudomonas, Burkholderia, and Similar Organisms

Chapter 22 - Achromobacter, Rhizobium, Ochrobactrum, and Similar Organisms

Chapter 23 - Chryseobacterium, Sphingobacterium, and Similar Organisms

Chapter 24 - Alcaligenes, Comamonas, and Similar Organisms

Chapter 25 - Vibrio, Aeromonas, Plesiomonas shigelloides, and Chromobacterium violaceum

Chapter 26 - Sphingomonas and Similar Organisms

Chapter 27 - Moraxella and Neisseria spp.

Chapter 28 - Eikenella corrodens and Similar Organisms

Chapter 29 - Pasteurella and Similar Organisms

Chapter 30 - Actinobacillus, Kingella, Cardiobacterium, Capnocytophaga, and Similar Organisms

Chapter 31 - Haemophilus

Chapter 32 - Bartonella

Chapter 33 - Campylobacter, Arcobacter, and Helicobacter

Chapter 34 - Legionella

Chapter 35 - Brucella
Chapter 36 - Bordetella pertussis, Bordetella parapertussis, and Related Species
Chapter 37 - Francisella
Chapter 38 - Streptobacillus spp. and Spirillum minus
Chapter 39 - Neisseria and Moraxella catarrhalis
Chapter 40 - Overview and General Laboratory Considerations
Chapter 41 - Overview of Anaerobic Organisms
Chapter 42 - Mycobacteria
Chapter 43 - Obligate Intracellular and Nonculturable Bacterial Agents
Chapter 44 - Cell Wall-Deficient Bacteria: Mycoplasma and Ureaplasma
Chapter 45 - The Spirochetes
Chapter 46 - Overview of the Methods and Strategies in Parasitology
Chapter 47 - Intestinal Protozoa
Chapter 48 - Blood and Tissue Protozoa
Chapter 49 - Protozoa From Other Body Sites
Chapter 50 - Intestinal Nematodes
Chapter 51 - Tissue Nematodes
Chapter 52 - Blood and Tissue Filarial Nematodes
Chapter 53 - Intestinal Cestodes
Chapter 54 - Tissue Cestodes
Chapter 55 - Intestinal Trematodes
Chapter 56 - Liver and Lung Trematodes
Chapter 57 - Blood Trematodes
Chapter 58 - Overview of Fungal Identification Methods and Strategies
Chapter 59 - Hyaline Molds, Mucorales, Basidiobolales, Entomophthorales, Dermatophytes, and Opportunistic and Systemic Mycoses
Chapter 60 - Dematiaceous (Melanized) Molds
Chapter 61 - Atypical and Parafungal Agents
Chapter 62 - The Yeasts and Yeastlike Organisms
Chapter 63 - Antifungal Susceptibility Testing, Therapy, and Prevention
Chapter 64 - Overview of the Methods and Strategies in Virology
Chapter 65 - Viruses in Human Disease
Chapter 66 - Antiviral Therapy, Susceptibility Testing, and Prevention
Chapter 67 - Bloodstream Infections
Chapter 68 - Infections of the Lower Respiratory Tract
Chapter 69 - Upper Respiratory Tract Infections and Other Infections of the Oral Cavity and Neck
Chapter 70 - Meningitis and Other Infections of the Central Nervous System
Chapter 71 - Infections of the Eyes, Ears, and Sinuses
Chapter 72 - Infections of the Urinary Tract
Chapter 73 - Genital Tract Infections
Chapter 74 - Gastrointestinal Tract Infections
Chapter 75 - Skin, Soft Tissue, and Wound Infections
Chapter 76 - Normally Sterile Body Fluids, Bone and Bone Marrow, and Solid Tissues
Chapter 77 - Quality in the Clinical Microbiology Laboratory
Chapter 78 - Infection Control

Cover Sheet: Request 22940

HOS6331 Postharvest Biology (Know-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	5/28/2026 12:48:33 PM
Updated	8/10/2026 8:12:02 AM
Description of request	Submission for AI Designation

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Horticultural Sciences 60230000	Christopher Gunter		5/28/2026
No document changes					
College	Pending	CALS - College of Agricultural and Life Sciences			5/28/2026
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 22940

Info

Request: HOS6331 Postharvest Biology (Know-AI)
Description of request: Submission for AI Designation
Submitter: Jenna Molen jenna.molen@ufl.edu
Created: 5/28/2026 12:12:49 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 HOS6331
Course Title Postharvest Biology
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 Prereq: BOT 3503, BOT 5505C, or equivalents
AI Percentile Designation This course contains 50% or greater AI-related content and/or assignments.
Requested AI Categories Know-AI: Know and Understand AI

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

Rationale for the AI Category Approximately 50% of the course content is directly related to AI, including topics such as Smart Farming, AI in Gene Editing, and Digital Twins. We also encourage students to use AI tools in their assignments, including website design and group projects. I think the below categories are aligned with my course.

Course Description Physiological, biochemical, and molecular aspects of senescence and ripening of harvested fruit, vegetative, and floral organs. Literature-based discussions of current theories and research on cellular processes relevant to the storage and quality maintenance of harvested plant organs.

Course Objectives To familiarize students with the relationships between plant organ type, function, and the relevance of these attributes to anticipated postharvest behavior and predictive handling protocols for specific commodities.

To familiarize students with organ type and function, and of the cellular implications of these attributes as they influence performance in the postharvest environment.

To familiarize students with the current literature in postharvest science, exposing them to the critical thinking skills required to adequately judge and evaluate the relevance of scientific findings.

Instructor(s) Tie Liu

Required Links and Policies Yes



HOS | Postharvest Biology and Technology

Class Number: 6331

Delivery Method: Primarily Classroom OR Online

Monday (Period 6) | Wednesday (Period 6&7) / Fifield Hall 1306 / Online Classroom Number

Instructor Information

Tie Liu

Telephone: 352-8462638

Office Hours:

Tuesday / 3:00-4:00pm

Preferred Method of Communication: tieliu@ufl.edu/ Canvas

Office Location

CALS / Fifield Hall 1213

Course Details

Course Description: HOS 6331- Postharvest Biology – Physiological, biochemical, and molecular aspects of senescence and ripening of harvested fruit and vegetative organs. Literature based discussions of current theories and research on cellular processes relevant to the storage and quality maintenance of harvested plant organs. Offered Spring semester, odd-numbered years.

Pre- and Co-Requisites: N/A

Credit Hours: 3

Course Fees:

Additional Course Description

OVERVIEW OF TOPICS

Physiology, biochemistry, and molecular biology of fruit and vegetative senescence following harvest. Mechanisms contributing to senescence and deterioration phenomena including unscheduled forms of programmed cell death (PCD) associated with abiotic and biotic storage disorders. Membrane and cell wall metabolism, low-temperature injury, reactive oxygen species, apoptotic-driven death phenomena, ethylene biosynthesis, reception, and signal transduction, controlled-atmosphere storage, and postharvest pathology.

Required Materials

This component is pre-populated and reflects listed course materials (Textbook Adoptions).

See example below:

There are no required texts. Readings will focus on current postharvest-related literature. Selected readings will be distributed in class or provided via electronic

Original file: UF_SimpleSyllabus-HOS6331-TL-2026.pdf

means. Many of the assigned readings can be obtained on selected e-journal-based locations. Readings will be assigned at least one week in advance of scheduled in-class discussions.

Resource texts for individuals involved in postharvest research

Postharvest Biology, Kays, S., Paull, R., 2004, Exon Press. A wide-spectrum treatment of the discipline of postharvest science. Subjects range from very applied to very basic.

Postharvest: An introduction to the physiology and handling of fruit, vegetables and ornamentals, 5th Edition, R. Wills, B. McGlasson, D. Graham, D. Joyce (Authors), 2007, University of New South Wales Press. A very introductory-level textbook that might be helpful to those with limited exposure to postharvest science. Emphasizes fundamental biological and technological principles important in the storage of fruit, vegetative and floral organs. Also reasonably priced, about \$50.00!

Recommended Materials

Advances in Post-Harvest Treatments and Fruit Quality and Safety, Vázquez, M., Ramírez, J.A., eds., 2011. Nova Science Publishers, New York. Emphasizes technology over fundamental postharvest biology but contains a number of excellent contributions from different authors. Currently about \$150.00.

Annual Plant Reviews, Senescence Processes in Plants, Susheng, G (ed.), 2007, Wiley-Blackwell. An excellent treatise of senescence biology, with emphasis on biochemical and molecular aspects but heavy bias (~80%) toward vegetative systems.

Plant Cell Death Processes, Larry Nooden (ed.), 2004, Elsevier (Academic Press). This is an excellent book addressing not only traditional concepts and views of senescence, ranging from cellular to organismic, but programmed cell death (PCD) as well.

A note on Materials

These will be assigned as needs arise. Please note that 10% of the course grade will be determined on the basis of student participation (participation in in-clas)

Course Goals and Objectives

COURSE SUBJECTIVES

- To familiarize students with the relationships between plant organ type, function, and the relevance of these attributes to predictive postharvest behavior and handling protocols.
- To familiarize students with organ type and function, and of the cellular implications of these attributes as they influence performance in the postharvest environment.
- To familiarize students with current literature in postharvest science, addressing critical thinking skills required to adequately judge and evaluate the relevance of scientific findings.

Expectations and Student Learning Outcomes

Student Learning Outcomes

Students who successfully complete this course will be able to:

REMEMBERING AND UNDERSTANDING

1. Define key postharvest physiological processes, including respiration, ethylene biosynthesis, senescence, and ripening.
2. Describe the biochemical pathways involved in fruit ripening and organ senescence.
3. Summarize the major physiological disorders that affect harvested horticultural products during storage and distribution.
4. Explain the role of plant hormones, particularly ethylene, in postharvest physiology.

APPLYING AND ANALYZING

5. Apply principles of postharvest biology to diagnose quality deterioration in harvested produce.
6. Differentiate between climacteric and non-climacteric fruits based on their respiratory patterns and ripening behavior.
7. Analyze the effects of pre-harvest factors, harvesting methods, and post-harvest handling on product quality and shelf life.
8. Compare different storage technologies (e.g., controlled atmosphere, modified atmosphere, refrigeration) in terms of their effectiveness for specific commodities.
9. Integrate knowledge of molecular biology, biochemistry, and physiology to explain postharvest responses to environmental stressors.

EVALUATING AND CREATING

10. Evaluate current postharvest technologies and management strategies for their impact on product quality and food loss reduction.
11. Design postharvest handling protocols for specific horticultural commodities based on their physiological characteristics.
12. Critique research literature on postharvest biology, identifying strengths and limitations of experimental approaches.
13. Develop strategies to minimize postharvest losses by integrating biological knowledge with technological solutions.
14. Formulate recommendations for quality assessment and sorting methods appropriate for different products and market requirements.

Methods of Evaluation

Use this component to explain how final course grade will be determined. Include all assignments that factor into the calculation of the course grade, and indicate how much (in points or percentages) each contributes.

Student Evaluation

Midterm exams (20%, scheduled at approximately 6 weeks into the semester), final exam (20%), class participation (10%), written assignment (20%) and an oral

presentation/critique of a contemporary topic in postharvest science (30%). Additional details of this assignment are described below.

Exams

The dates of the exams will be announced at least one week in advance. Letter grade assignments will depend on the performance of the class as a whole, but will be no stricter than $\geq 90 = A$; $\geq 80, < 90 = B$, etc. Students missing scheduled exams due to excused absences will be permitted to perform make-up exams at a time and place arranged between the student and instructor.

Written Assignment

Two pages, font size 12, single spaced (~1000 words).

Read and summarize 5 or more papers in the topics area on molecular studies, include one figure to support the summary.

Class Assignment and Oral Presentation

At the start of the semester, each student will be required to select a topics on postharvest biology that will provide the focal point for a 25 min presentation by the students. The presentation will be followed by a question/discussion session, with the student, with the assistance of the instructor, serving as discussion leader.

Scheduling of the presentations will commence as early in the semester as possible.

Topics will be selected by the student but confer with the instructor to avoid redundancy in topic selections. **Examples of acceptable topics:** postharvest issues as affected by organ morphology, developmental status at harvest, respiratory patterns after harvest, maturity indices, ethylene production/sensitivity, senescence patterns including programmed cell death, controlled-atmosphere storage and tolerance, pathogens, pigment changes, unique secondary metabolites, etc.

Grading Scale

Letter grade and percentage

Letter	Percentage Value
A	94 - 100%
A -	90 - 93%
B +	87 - 89%
B	83 - 86%
B -	80 - 82%
C +	77 - 79%
C	73 - 76%
C -	70 - 72%
D +	67 - 69%
D	63 - 66%
D -	60 - 62%
E	59% and below

Course Schedule

HOS 6331 Postharvest Biology

Week	Lecture Topics	Lecturer
Week 1 Jan 16, 17	Overview of postharvest biology Molecular postharvest biology	Liu
Week 2 Jan 22	Subjective vs. objective, destructive vs. nondestructive	Sargent
Week 3 Jan 27, 29	Quality attributes and maturity/harvesting indices	Brecht
Week 4 Feb 3, 5	Fresh-cut fruits and vegetables, Fresh fruit flavor and aroma	Brecht
Week 5 Feb 10, 12	Membrane structural/functional changes in senescing organs (Gene Editing/CRISPR) Stress in harvested products	Liu
Week 6 Feb 17, 19	Cell death processes in harvested plants and plant organs (Genomics) A multidimensional systems biology analysis of cellular senescence	Liu
Week 7 Feb 24, 26	Reactive oxygen species: signaling in senescence and aging (Phenomics) Plant bioactive compounds in pre- and postharvest management	Liu
Week 8 Mar 3, 5	Potato tuber dormancy and postharvest sprout control (proteomics) Source-sink development in potato Mid-term exam	Liu
Week 9 Mar 10, 12	Ethylene biosynthesis and signal transduction Genetic modification of ethylene biosynthesis/perception/signaling	Liu
Week 10 Mar 17, 19	Spring Break	
Week 11 Mar 24, 26	Fruit postharvest physiology and fruit softening (Metabolomics) Molecular breeding for fruit quality	Liu
Week 12 Mar 31, Apr 2	Harvest and postharvest processing of medicinal plants (Nanoparticles) Fruit flavor, volatile metabolism	Liu
Week 13 Apr 7, 9	Advances in postharvest treatments and technologies (ML) Machine learning in postharvest biology. Written assignment due	Liu
Week 14 Apr 14, 16	Growth kinetics, sink activity, and consequences of maturity at time of harvest	Ritenour
Week 15 Apr 21, 23	Postharvest pathology: latency, quiescence infection progression and host responses, symptom expression	Ritenour
Apr 28	Final Exam	Liu

University Policies and Resources

This section reflects UF policies and resources.

Information about grading policies, support for students with disabilities, course evaluations, the Honor Code, and other course policies and campus resources can be found on the [Syllabus Policies page](#).

Attendance Policy

Excused and Unexcused Absences

Students may only participate in classes if they 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.

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

Acceptable reasons for absence from or failure to engage in class include illness; Title IX-related situations; serious accidents or emergencies affecting the student, their roommates, or their family; special curricular requirements (e.g., judging trips, field trips, professional conferences); military obligation; severe weather conditions that prevent class participation; religious holidays; participation in official university activities (e.g., music performances, athletic competition, debate); and court-imposed legal obligations (e.g., jury duty or subpoena). Other reasons (e.g., a job interview or club activity) may be deemed acceptable if approved by the instructor.

For all planned absences, a student in a situation that allows an excused absence from a class, or any required class activity must inform the instructor as early as possible prior to the class. For all unplanned absences because of accidents or emergency situations, students should contact their instructor as soon as conditions permit.

Students shall be permitted a reasonable amount of time to make up the material or activities covered during absence from class or inability to engage in class activities because of the reasons outlined above.

If a student does not participate in at least one of the first two class meetings of a course or laboratory in which they are registered, and they have not contacted the department to indicate their intent, the student can be dropped from the course. Students must not assume that they will be dropped, however. The department will notify students if they have been dropped from a course or laboratory.

The university recognizes the right of the instructor to make attendance mandatory and require documentation for absences (except for religious holidays), missed work, or inability to fully engage in class. After due warning, an instructor can prohibit further attendance and subsequently assign a failing grade for excessive absences.

Religious Holidays Guidelines

At the University of Florida, students and faculty work together to allow students the opportunity to observe the holy days of their faith. A student should inform the faculty member of the religious observances of their faith that will conflict with class attendance, with tests or examinations, or with other class activities prior to the class or occurrence of that test or activity. The faculty member is then obligated to accommodate that particular student's religious observances. Because students represent a myriad of cultures and many faiths, the University of Florida is not able to assure that scheduled academic activities do not conflict with the holy days of all religious groups. Accordingly, individual students should make their need for an excused absence known in advance of the scheduled activities.

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

Guidelines

- 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 they have been unreasonably denied an education benefit due to religious beliefs or practices may seek redress through the student grievance procedure.

Absence due to Illness

A student who is absent from class or any required class-related activity because of illness should contact their instructor, if feasible, as early as possible prior to the missed class or activity.

Students shall be permitted a reasonable amount of time to make up the material or activities covered during an excused absence.

Students should contact their college by the deadline to drop a course for medical reasons. Students 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 university-sponsored athletic or scholarly 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 as defined in the approved university calendar. More Info

The student or student's advisor must notify the instructor as early as possible prior to the anticipated absence to allow ample time for accommodations. Instructors must be flexible and not penalize students when re-scheduling during-term and final exams, class assignments, and other required activities and must follow the UF Attendance Policy herein and UF Examination Policies. As noted in the UF Examination Policies, during-term exams should be re-scheduled no later than before the end of the semester, while final exams no later than 90 days after the originally scheduled exam time. However, instructors are encouraged to re-schedule final and during-term exams, assignments, and other activities as soon as possible after the last day of the absence and must not penalize the student in any way. More Info

A group's schedule that requires absence of more than 12 scholastic days should be adjusted so that no student is absent from campus more than 12 scholastic days. Students who previously have been warned in writing by their instructor about the impact of absences on their individual class performance should not incur additional absences, even if they have not been absent 12 scholastic days. The student is responsible to maintain satisfactory academic performance and attendance.

Late and Make Up Work Policy

Please keep in mind that individual course policies may not violate the [university policy](#) on attendance, absences, and make-up work.

Classroom Behavior

This is an optional area to describe expected classroom behavior.

Technology in the Classroom

This is an optional area to detail how technology can or should be used in the classroom. If you have policies on use of AI, they should be clearly stated here.

Customizable Component (e.g., Rubrics, Studying Tips)

This is an optional section where you can include any relevant additional information for the course. For example, you may add rubrics that will be used to assess student performance on assignments such as discussion posts, essays, or presentations. To build a rubric table, use the table icon and select the rows and columns to communicate the information. You can insert a new table for each rubric.

Cover Sheet: Request 22884

MCB5945L-Clinical Experience in Microbiology

Info

Process	Course Modify 5000 Ugrad/Grad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Leandro Dias Teixeira leandroteixeira@ufl.edu
Created	5/3/2026 6:43:14 AM
Updated	8/19/2026 10:34:51 AM
Description of request	We are formally requesting a reduction in the credit hours for MCB5945L from two credits to one credit to better align the course designation with the actual student workload. MCB5945L serves as the culminating experience for the Clinical Laboratory Microbiologist graduate certificate, consisting of a two-week clinical internship supplemented by online coursework. The current volume of online activities, however, does not justify a two-credit weight. The online assignments and examinations administered via Canvas are primarily designed to prepare students for the ASCP Board of Certification exam. Because these assessments are review-based and evaluate material that students have already covered in prerequisite courses within the certificate program, the required time investment is significantly reduced. Adjusting MCB5945L to one credit provides an accurate representation of this focused, review-and-application capstone experience without compromising the program's rigor.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Microbiology and Cell Science 60100000	Eric Triplett		5/12/2026
No document changes					
College	Pending	CALS - College of Agricultural and Life Sciences			5/12/2026
No document changes					
Graduate Curriculum Committee					
No document changes					
University Curriculum Committee					
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Catalog					
No document changes					
Graduate Catalog Notified					
No document changes					

Step	Status	Group	User	Comment	Updated
Student Academic Support System					
No document changes					
College Notified					
No document changes					

Modify Course Request (v.2026) for request 22884

Info

Request: MCB5945L-Clinical Experience in Microbiology

Description of request: We are formally requesting a reduction in the credit hours for MCB5945L from two credits to one credit to better align the course designation with the actual student workload. MCB5945L serves as the culminating experience for the Clinical Laboratory Microbiologist graduate certificate, consisting of a two-week clinical internship supplemented by online coursework. The current volume of online activities, however, does not justify a two-credit weight.

The online assignments and examinations administered via Canvas are primarily designed to prepare students for the ASCP Board of Certification exam. Because these assessments are review-based and evaluate material that students have already covered in prerequisite courses within the certificate program, the required time investment is significantly reduced. Adjusting MCB5945L to one credit provides an accurate representation of this focused, review-and-application capstone experience without compromising the program's rigor.

Submitter: Leandro Dias Teixeira leandroteixeira@ufl.edu

Created: 5/3/2026 6:33:24 AM

Form version: 1

Responses

Current Prefix MCB

Course Level 5

Number 945

Lab Code L

Course Title Clinical Experience in Microbiology

Effective Term Earliest Available

Effective Year Earliest Available

Requested Action Other (selecting this option opens additional form fields below)

Change Course Prefix? No

Change Course Level? No

Change Course Number? No

Change Lab Code? No

Change Course Title? No

Change Transcript Title? No

Change Credit Hours? Yes

Current Credit Hours 2

Proposed Credit Hours 1

Change Variable Credit? No

Change S/U Only? No

Change Contact Type? No

Course Type Internship

Change Rotating Topic Designation? No

Change Repeatable Credit? No

Multiple Offerings in a Single Semester No

Change Course Description? No

Change Course Objectives No

Change Prerequisites? No

Change Co-requisites? No

Rationale MCB5945L serves as the culminating internship course for the Clinical Laboratory Microbiologist graduate certificate. The course is primarily designed to prepare students for the ASCP Board of Certification exam. Structurally, the course consists of an intensive two-week clinical internship, supplemented by online assignments and examinations administered via Canvas.

Justification for Credit Reduction:

Workload and Contact Hour Alignment: The primary driver for this request is that the total instructional and student workload hours no longer justify a 2-credit designation. While the two-week clinical rotation provides essential hands-on experience, the accompanying online coursework requires a lower time investment than what is strictly required for a multi-credit graduate laboratory/internship course. Adjusting the course to 1 credit accurately reflects the true time commitment expected of the students.

Nature of the Online Assessments: The assignments and exams conducted on Canvas are specifically designed for board preparation rather than the introduction of novel, heavy graduate-level concepts. Because these assessments are primarily review-based—evaluating mastery of material that students have already covered in prerequisite courses within the CLM certificate program—the cognitive load and study time are significantly reduced.

Streamlined Focus on Certification: The core objective of MCB5945L is to synthesize prior learning and apply it in a short-term clinical setting to ensure readiness for the ASCP exam. A 1-credit designation correctly signals to students that this is a focused, review-and-application capstone experience rather than a heavily didactic course.

Summary:

Reducing MCB5945L to 1 credit aligns the course weight with its actual workload, maintains the integrity of the CLM certificate's credit structure, and provides students with a fair and accurate representation of the effort required to complete their ASCP board preparation.

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.****

It

_____ 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/>.

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

X

_____ 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.

X

_____ 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.

X

_____ 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.

X

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

X

_____ 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.

X

_____ 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/>.

X

_____ 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.)

X

_____ 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.

X

_____ 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.

X

_____ 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)



MCB 5945L | Clinical Experience in Microbiology

Class Number: 26799

Delivery Method: Hybrid

Instructor Information

Name: Leandro Teixeira

Email: leandroteixeira@ufl.edu

Telephone: 3523928350

Office Hours

Wednesday, from 9am to 1pm

Office Location

1355 Museum Dr., room 1047, main campus.

Course Details

Catalog Description: This course is a hands-on training in a clinical microbiology laboratory with practical exposure to the essential functions of a clinical microbiology laboratory. This course is designed to equip students with the skills needed to conduct a variety of clinical laboratory tests with accuracy, safety, and efficiency. Students will learn to apply quality control principles and practices, critically evaluate laboratory results while consider quality control measures and instrument operation.

Pre- and Co-Requisites: Prereq: Enrolled in Clinical Laboratory Microbiologist Program. **Credit Hours:** 1

Course Fees: \$100.00

Additional Course Description

Welcome to the Clinical Experience in Microbiology course! In this immersive program, you will have the opportunity to step into a clinical microbiology laboratory, where you'll gain hands-on experience and deepen your understanding of microbial diagnostics and

applications. This practicum is designed to bridge the gap between theoretical knowledge and real-world practice, allowing you to observe and participate in the critical processes that contribute to patient care. Get ready to enhance your skills, engage with professionals in the field, and discover the vital role microbiology plays in healthcare!

Required Materials

The instructor has stated that there are no items required or recommended for this section.

A Note on Materials

All materials and supplies will be provided

Course Goals and Objectives

- To provide a comprehensive overview of the immune system's major components and functions, emphasizing the critical distinctions between innate and adaptive immunity and the mechanisms of host defense against pathogens.
- To examine the core principles and methodologies of clinical immunological testing and serology.
- To demonstrate how to accurately interpret immunological laboratory results and correlate them with specific pathologies, including infectious diseases, autoimmune disorders, and allergies.
- To illustrate the vital connection between foundational immunological concepts and real-world clinical scenarios to facilitate the analysis of various immune disorders.
- To model effective professional communication strategies for conveying complex immunological principles and diagnostic test results clearly to both healthcare teams and patients.

Expectations and Student Learning Outcomes

By the end of this course, students will be able to:

- Apply aseptic techniques and follow universal precautions when handling

specimens.

- Quality Control and Instrumentation
- Interpret and verify daily quality control data according to established guidelines and describe the elements of a standard quality control program.
- Show a basic understanding of instrumentation setup and preparation for daily operations at each workbench.
- Understand and apply testing principles, including manual methods, kit testing, and automated instrumentation.
- Assess sample integrity by evaluating request appropriateness, labeling, type, quantity, handling, and transport according to laboratory protocols with minimal guidance.
- Conduct testing accurately, safely, and efficiently following laboratory protocols.
- Demonstrate the ability to process and prepare specimens correctly for testing.
- Pathogen Identification and Reporting
- Identify, report, and quantify potential pathogens and normal flora, including colony morphology, gram staining, identification testing, and susceptibility testing.
- Monitoring and Reporting Discrepancies
- Monitor, assess, and report discrepancies to supervisors or relevant personnel.
- Recognize and evaluate susceptibility patterns for common pathogens.
- Troubleshooting and Reference Values
- Identify and discuss basic troubleshooting related to discrepancies in instruments, kits, and manual methods.
- Understand reference values for commonly performed tests.
- Clinical Significance and Critical Results
- Articulate the clinical significance of normal and abnormal results, recognize potential false results and their causes, and relate findings to associated disease states.
- Identify critical results and take appropriate action.
- Clearly communicate thoughts through speech, writing, or gestures to ensure understanding among staff, healthcare professionals, and patients.
- Maintain patient confidentiality.
- Demonstrate a basic understanding of laboratory information systems (LIS) and related software beyond result reporting.
- Understand the process of inventory management.
- Enhance workload organization and efficiency throughout the rotation.
- Discuss the impact of accreditation and regulations on laboratory activities and workflow.
- Continuously improve technical and interpersonal skills through self-directed learning.
- Critically assess personal performance related to technical skills and interpersonal behavior, accept constructive feedback, seek improvement, and apply learning to future experiences.
- Exhibit professionalism by taking responsibility for the quality of one's work and demonstrating a commitment to ongoing education and professional development.

Methods of Evaluation

This course will be graded on a Pass/Not Pass basis. There are multiple required components in this course, including:

- Phase 1:
 - MediaLab exam Simulation, on-site clinical experiences, final exams, and BOC exam.
- Pre-Clinical Survey
- Phase 2:
 - On-site clinical experiences as scheduled
 - Clinical assignments (safety checklist, weekly journal, investigative assignments, MediaLab knowledge check)
 - Microorganism checklist
 - Final Evaluation of student performance in the assigned area including technical skills, affective domain, knowledge application, and employment recommendation.
- Final exam
- Student evaluation of clinical site
- Affective Domain self-assessments
- Participation and Completion of "Collaboration in Action" Interprofessional Education (IPE) Activities (~3-4 hours total) on Canvas provided through OACA at least once during the clinical semester.
- Phase 3:
 - BOC Prep module & Post-Clinical Assignments
 - Post-clinical assignments/surveys
 - Degree clearance survey
 - BOC Preparation module activities in Canvas & assigned pre/post practice BOC Exam.

Grading Scale

Letter grade and percentage

Letter	Percentage Value
A	94 - 100%
A -	90 - 93%
B +	87 - 89%
B	83 - 86%
B -	80 - 82%
C +	77 - 79%
C	73 - 76%
C -	70 - 72%
D +	67 - 69%
D	63 - 66%
D -	60 - 62%
E	59% and below

This course is evaluated on a pass/fail basis. A student is considered to have passed the course if they earn a grade of **C or higher**.

Course Schedule

Phase 1:

- Complete Review of Virtual Prep Course Modules and Quizzes in Canvas
- Review Syllabus for this course
- Review Canvas Site Information
- Complete activities in MediaLab as assigned
- Complete virtual activities including review modules, procedures, MediaLab, videos, handouts, and reading.
- Study/review content material for on-campus simulation and laboratory testing
- Complete quizzes after each module in MLM Simulation Orientation Canvas Site

Phase 2: Assigned 2-week clinical experience

- Attend clinical site experience each scheduled day, stay the full day
- Gain experiences to achieve objectives and competencies listed in final evaluation and to meet expectations in all areas
- Consistently meet expectations in all areas of the final evaluation
- Complete assignments in Course Canvas site
- Review material and study to prepare for each clinical and final exam

Phase 3: Post-Clinical Final Exams & Assignments

- Complete post-clinical assignments
- Complete degree clearance survey
- Complete and submit Interprofessional Education (IPE) activities/assignments/surveys
- Complete BOC preparation module

University Policies and Resources

Information about grading policies, support for students with disabilities, course evaluations, the Honor Code, and other course policies and campus resources can be found on the [Syllabus Policies page](#).

Attendance Policy

Excused and Unexcused Absences

Students may only participate in classes if they 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.

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

Acceptable reasons for absence from or failure to engage in class include illness; Title IX-related situations; serious accidents or emergencies affecting the student, their roommates, or their family; special curricular requirements (e.g., judging trips, field trips, professional conferences); military obligation; severe weather conditions that prevent class participation; religious holidays; participation in official university activities (e.g., music performances, athletic competition, debate); and court-imposed legal obligations (e.g., jury duty or subpoena). Other reasons (e.g., a job interview or club activity) may be deemed acceptable if approved by the instructor.

For all planned absences, a student in a situation that allows an excused absence from a class, or any required class activity must inform the instructor as early as possible prior to the class. For all unplanned absences because of accidents or emergency situations, students should contact their instructor as soon as conditions permit.

Students shall be permitted a reasonable amount of time to make up the material or activities covered during absence from class or inability to engage in class activities because of the reasons outlined above.

If a student does not participate in at least one of the first two class meetings of a course or laboratory in which they are registered, and they have not contacted the department to indicate their intent, the student can be dropped from the course. Students must not assume that they will be dropped, however. The department will notify students if they have been dropped from a course or laboratory.

The university recognizes the right of the instructor to make attendance mandatory and require documentation for absences (except for religious holidays), missed work, or inability to fully engage in class. After due warning, an instructor can prohibit further attendance and subsequently assign a failing grade for excessive absences.

Religious Holidays Guidelines

At the University of Florida, students and faculty work together to allow students the opportunity to observe the holy days of their faith. A student should inform the faculty member of the religious observances of their faith that will conflict with class attendance, with tests or examinations, or with other class activities prior to the class or occurrence of that test or activity. The faculty member is then obligated to accommodate that particular student's religious observances. Because students represent a myriad of cultures and many faiths, the University of Florida is not able to assure that scheduled academic activities do not conflict with the holy days of all religious groups. Accordingly, individual students should make their need for an excused absence known in advance of the scheduled activities.

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

Guidelines

- 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 they have been unreasonably denied an education benefit due to religious beliefs or practices may seek redress through the student grievance procedure.

Absence due to Illness

A student who is absent from class or any required class-related activity because of illness should contact their instructor, if feasible, as early as possible prior to the missed

class or activity.

Students shall be permitted a reasonable amount of time to make up the material or activities covered during an excused absence.

Students should contact their college by the deadline to drop a course for medical reasons. Students 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 university-sponsored athletic or scholarly 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 as defined in the approved university calendar. [More Info](#)

The student or student's advisor must notify the instructor as early as possible prior to the anticipated absence to allow ample time for accommodations. Instructors must be flexible and not penalize students when re-scheduling during-term and final exams, class assignments, and other required activities and must follow the UF Attendance Policy herein and UF Examination Policies. As noted in the UF Examination Policies, during-term exams should be re-scheduled no later than before the end of the semester, while final exams no later than 90 days after the originally scheduled exam time. However, instructors are encouraged to re-schedule final and during-term exams, assignments, and other activities as soon as possible after the last day of the absence and must not penalize the student in any way. [More Info](#)

A group's schedule that requires absence of more than 12 scholastic days should be adjusted so that no student is absent from campus more than 12 scholastic days. Students who previously have been warned in writing by their instructor about the impact of absences on their individual class performance should not incur additional absences, even if they have not been absent 12 scholastic days. The student is responsible to maintain satisfactory academic performance and attendance.

Late and Make Up Work Policy

The internship will be scheduled based on students and clinical site availability. Schedule will be provided in advanced and students will be able to confirm their

commitment to the time allocated. Failing to attend or arriving late will may cause the failure in this course.

Cover Sheet: Request 21907

PCB4522 — Molecular Genetics

Info

Process	Modify or Close Course Ugrad (v.2026)
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Tyler Square square.t@ufl.edu
Created	9/17/2025 8:16:44 AM
Updated	6/22/2026 1:41:39 PM
Description of request	Updating the course description (minor changes)

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Microbiology and Cell Science 60100000	Eric Triplett		10/23/2025
No document changes					
College	Recycled	CALS - College of Agricultural and Life Sciences	Anne Mathews	Hi Tyler and Eric - CALS and the UCC require a syllabus to review changes. Please upload a syllabus with the new course description included and the CALS checklist with any needed edits made. Melissa Jones is your representative to the CALS committee and can assist if needed.	11/5/2025
No document changes					
Department	Approved	CALS - Microbiology and Cell Science 60100000	Eric Triplett		6/22/2026
PCB_4522_syllabus_2026.pdf					11/11/2025
College	Pending	CALS - College of Agricultural and Life Sciences			6/22/2026
No document changes					
University Curriculum Committee					
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Catalog					
No document changes					

Step	Status	Group	User	Comment	Updated
Student Academic Support System					
No document changes					
College Notified					
No document changes					

Modify Course Request (v.2026) for request 21907

Info

Request: PCB4522 — Molecular Genetics

Description of request: Updating the course description (minor changes)

Submitter: Tyler Square square.t@ufl.edu

Created: 9/17/2025 7:58:26 AM

Form version: 1

Responses

Current Prefix PCB

Course Level 4

Number 522

Lab Code None

Course Title Molecular Genetics

Effective Term Earliest Available

Effective Year Earliest Available

Requested Action Other (selecting this option opens additional form fields below)

Change Course Prefix? No

Change Course Level? No

Change Course Number? No

Change Lab Code? No

Change Course Title? No

Change Transcript Title? No

Change Credit Hours? No

Change Variable Credit? No

Change S/U Only? No

Change Contact Type? No

Course Type Lecture

Change Rotating Topic Designation? No

Change Repeatable Credit? No

Multiple Offerings in a Single Semester No

Change Course Description? Yes

Current Course Description Molecular biology of prokaryotes and eukaryotes covering the fundamentals of genome organization and gene structure, regulation of transcription, DNA replication

and repair, and RNA processing. Also includes discussion of strategies, vectors and applications of genetic engineering in higher plants and animals.

Proposed Course Description (500 characters max) Molecular biology of prokaryotes and eukaryotes covering the fundamentals of gene and genome organization, transcription, translation, DNA replication and repair, and RNA processing. Also includes discussion of genetic engineering strategies and modern sequencing technologies.

Change Course Objectives No

Change Prerequisites? No

Change Co-requisites? No

Rationale Editing to 1) include "translation" as a main topic of the class, 2) to remove the term "higher plants and animals" as this is no longer a relevant given that we discuss genome engineering in all organisms, and 3) to add mention of modern sequencing technologies.

Molecular Genetics (PCB 4522 + MCB 6937)

Fall 2026 Syllabus

Instructor contact: Dr. Tyler Square, email: square.t@ufl.edu, office: Microbiology and Cell Science (building 0981, main campus) room 1001.

Course description: Molecular biology of prokaryotes and eukaryotes covering the fundamentals of gene and genome organization, transcription, translation, DNA replication and repair, and RNA processing. Also includes discussion of genetic engineering strategies and modern sequencing technologies.

Course overview and purpose: All known organisms use genetic instructions encoded in DNA. But DNA alone is not enough – an instruction book by itself is useless without a way to read and implement the instructions within. In this course, we will explore the molecular structure of DNA, how genes and genomes are arranged, how DNA is mutated and repaired, and the machinery that is used to transcribe and translate DNA across different major branches of the tree of life, including both eukaryotic and prokaryotic systems.

Course learning objectives: the main goal of this course is to endow students with a foundational understanding of the molecules involved with the transmission, utilization, and evolution of genetic information. Achieving this goal should empower students to think critically about how molecular genetic processes are connected to and interact with macro-scale processes in other areas of research and everyday life. After each module (indicated below), students should be able to:

- Recall basic aspects of nucleic acid biochemistry (Module I)
- Predict theoretical experimental outcomes involving nucleic acid biochemistry (Module I)
- Recall important features of the cell cycle, DNA replication, and DNA repair (Module II)
- Predict hypothetical outcomes of mutations affecting these processes (Module II)
- Recall important events, genes, and proteins involved in transcription and translation (Module III)
- Evaluate hypothetical genetic circuits to predict what functional outcomes they would yield (Module III)
- Recall how gene regulation works in prokaryotes and eukaryotes (Module IV)
- Evaluate the outcomes of hypothetical experiments (Module IV)
- Recall basic features of modern mutagenesis methods and sequencing approaches (Module V)
- Develop an experimental approach using modern sequencing techniques to test a given hypothesis (Module V)

Prerequisites: A grade of C or better in Integrated Principles of Biology (BSC 2010) and its accompanying lab course (2010L), or equivalent.

Course Canvas Website: <https://ufl.instructure.com/courses/541376>

Class Schedule: This class is asynchronous and can be taken 100% online via Canvas. It is designed to follow a Tuesday-Thursday type schedule throughout the semester. The lectures are pre-recorded and uploaded to Canvas. Dates of lectures in the syllabus correspond to the intended Tues/Thurs distribution; students are encouraged but not required to follow along at this pace. The quizzes and exams are timed and will only be available during the windows indicated on the next page.

Course Structure: The course consists of five modules, each corresponding to an exam. The first four modules comprise five lectures and two quizzes each. The last module has only three lectures and one quiz.

Lecture # (suggested date)	Subject material	Suggested reading	Due dates for exams, quizzes, and homework
Module I: meet the molecules (nucleic acids, genomes, and methods)			
Lecture 1 (~08/21)	Course intro, the origin of life, DNA biochemistry	1.1-1.10	Quiz 1 on lectures 1-3 due 11:59p 08/29
Lecture 2 (~08/26)	RNA biochemistry, gene structure, mutations	1.11-1.27, 3.1-3.11, 23.1-23.3	Honorlock test quiz due 11:59p 09/03
Lecture 3 (~08/28)	Genome structure and contents	4.1-4.9	MCB6937 lit. reflection #1 due 11:59p 09/04
Lecture 4 (~09/02)	Comparative genomics and evolution	5.1-5.23	Quiz 2 on lectures 4 and 5 due 11:59p 09/05
Lecture 5 (~09/04)	Methods in molecular biology	2.1-2.12	Exam I starts 8a 09/08 ends 8p 09/10
Module II: the meaning of life (DNA replication, cell division, repair, incursions)			
Lecture 6 (~09/11)	DNA replication and cell division in prokaryotes	9.1-9.8, 10.1-10.7, 11.1-11.12, 11.15	BLAST and NCBI homework due 11:59p 9/15
Lecture 7 (~09/16)	DNA replication and mitosis in eukaryotes	9.9-9.11, 10.8-10.11, 11.13	Quiz 3 on lectures 6, 7, 8 due 11:59p 09/19
Lecture 8 (~09/18)	Meiosis and life cycles	13.1-13.5; Wikipedia life cyc	MCB6937 lit. reflection #2 due 11:59p 09/25
Lecture 9 (~09/23)	DNA repair	14.1-14.13, 11.14	Quiz 4 on lectures 9 and 10 due 11:59p 09/26
Lecture 10 (~09/25)	Transposable elements and viruses	15.1-15.18	Exam II starts 8a 09/29 ends 8p 10/01
Module III: Putting up some walls (transcription and translation)			
Lecture 11 (~10/02)	Transcription in prokaryotes	17.1-17.17	Poster homework due 11:59p 10/07
Lecture 12 (~10/07)	Transcription in eukaryotes	18.1-18.12	Quiz 5 on lectures 11, 12, 13 due 11:59p 10/10
Lecture 13 (~10/09)	RNA processing	19.1-19.16, 21.1-21.4	MCB6937 lit. reflection #3 due 11:59p 10/15
Lecture 14 (~10/14)	RNA localization and stability	20.1-20.11	Quiz 6 on lectures 14 and 15 due 11:59p 10/16
Lecture 15 (~10/16)	Translation	22.1-22.22, 23.9	Exam III starts 8a 10/20 ends 8p 10/22
Module IV: Work smarter, not harder (gene regulation and cell differentiation)			
Lecture 16 (~10/23)	Gene regulation in prokaryotes	24.1-24.16	Quiz 7 on lectures 16, 17, 18 due 11:59p 10/31
Lecture 17 (~10/28)	Gene regulation eukaryotes	26.1-26.14	PCB 4522 + MCB 6937 lit. reflection homework due 11:59p 10/30
Lecture 18 (~10/30)	Epigenetics	27.1-27.6, 28.1-28.5	MCB 6937 lit. reflection #4 due 11:59p 11/06
Lecture 19 (~11/04)	Intro to developmental biology	Wikipedia dev. biol. page	Quiz 8 on lectures 19 and 20 due 11:59p 11/08
Lecture 20 (~11/06)	Genetic compensation	none (lit. reflection HW)	Exam IV starts 8a 11/10 ends 8p 11/13
Module V: The Frontier Awaits (modern tools, applications, and approaches)			
Lecture 21 (~11/14)	CRISPR and gene editing	Review paper link	
Lecture 22 (~11/19)	Modern genetic tools	Gal4/UAS , AAVs , Rainbow	Sequence design homework due 11:59p 11/19
Lecture 23 (~11/21)	Sequencing approaches	Illumina , PacBio , Nanopore , scRNAseq	Quiz 9 on lectures 21, 22, 23 due 11:59p 11/21
Lecture 24 (~12/03)	None – hurricane buffer/extra review		Exam V during finals week (date TBD)

Textbook: Lewin's Genes XII (Authors: Krebs, Goldstein, and Kilpatrick) ISBN 1284104494. Recommended but not required.

Office hours: Thursday period 9 (4:05-4:55p) in Weil 0270, and by request.

Lectures: There are 23 content lectures in this class, five for each of the first four modules, and only three lectures for Module V. Most lectures are about one hour long, but some are as short as ~35 min, and others are as long as ~75 minutes. For some, the longer formats may be difficult to get through in a single sitting, so please feel free to press pause and break them up into shorter watching sessions if you feel you would ingest the information better in smaller doses.

Grading: Grades in this class will be determined by five exams, ten quizzes, and four* homework assignments. The ten quizzes include nine on course subject material (numbered 1-9) and an additional Honorlock/camera setup “quiz.” No items in this class are dropped, and there is a single 1% extra credit opportunity, to be announced midway through the class. Grades are determined as follows:

Graded items	% of grade
Exam I	10
Exam II	15
Exam III	15
Exam IV	15
Exam V	10
Quizzes (10x)	15
Homework (4x*)	20

Percentage	Letter grade
93% to 100%	A
90% to 92.9%	A-
87% to 89.9%	B+
83% to 86.9%	B
80% to 82.9%	B-
77% to 79.9%	C+
73% to 76.9%	C
70% to 72.9%	C-
67% to 69.9%	D+
60% to 66.9%	D
0% to 59.9%	F

*Graduate level sections have 4 additional literature reflection homework assignments that fall into the homework category; the category is still weighted 20%

Exam and Proctoring Information: For the exams, you must use the Chrome browser with the Honorlock extension. You are also required to procure and use an external camera with at least a 110° viewing window ([I recommend this camera](#)). Your screen and immediate surroundings will be monitored for suspicious activity and reported if anything is detected. Someone from the teaching team will review your Honorlock video for each exam. Canvas also records a log of test taker network and screen activity during the exam. **If the teaching team determines you were using any outside resources, like your phone, during the exam, you will receive a 0 and be referred to the Dean of Students Office for an Honor Code violation.**

For each exam, there is a 2.5 day window in which you can complete it. The exam windows will open at 8:00 AM EST and close at 8:00 PM EST 2.5 days later. These exams are designed to take ~40 minutes to complete, but I make them universally accessible from a timing perspective by giving all students 2 hours to complete each exam. Thus all students benefit from a 3x time increase, assuming you begin the exam prior to 6 PM on the last day. If you live in a different time zone, please take this into account: Canvas will lock your exam responses at 8 PM Eastern Standard Time. You can complete your exam with Honorlock proctoring at any time during the exam window. You do not need to schedule an appointment to use Honorlock. The exams are closed book with a lockdown browser. You may use one sheet of **blank** scratch paper during the exam (you must show it to the camera before and after the exam). To learn more about Honorlock, go to the student page of Honorlock and watch their quick video at: <https://honorlock.com/students/>

Note: If you have privacy concerns regarding Honorlock's access to your computer activity outside of the times it is required for class, the Honorlock extension can be easily removed from your browser immediately after each exam or the test quiz (you'll need to add it again for the next exam). To remove it, go to Chrome -> preferences -> settings -> extensions and select remove Honorlock.

When you start the onboarding process for Honorlock you will be asked to take a picture of your face and your photo ID. You may need to do this using your laptop camera if your external camera cannot focus on your ID. To familiarize you with Honorlock and the external camera, we will do a proctored test quiz. This way, we can work out any bugs well before the proctoring system is needed for an exam. This quiz is due on Wednesday,

September 3rd by 11:59 PM and a score of 100% is required to access the exams. You can take the quiz as many times as you want to score 100%. If you are experiencing technical issues that Honorlock support cannot fix, please contact your TA.

Quizzes: There will be nine quizzes on class material. Each quiz covers 2-3 lectures worth of material, they happen each week that there is not an exam. The quizzes are open for one week, usually due on Fridays at 11:59 PM (one exception: Quiz 6 is due on Thursday 10/16), see the schedule table above for quiz due dates. You have three attempts to submit your quiz, your highest score will be kept. For quizzes with a free response question, only your final free response will be graded. The quizzes are open book – please feel free to use outside resources and collaborate with your classmates to complete them. However, I do encourage you to *actually* quiz yourself on at least the first attempt in order to identify which areas of the material you may need to review. I have structured the quiz questions to be similar in difficulty and scope to exam questions, so these should be thought of as a tool for you to hone your knowledge of the material on which you will be tested.

Homework: PCB 4522 will have four homework assignments: 1) BLAST tutorial, 2) science poster, 3) literature reflection, and 4) sequence and cloning design. MCB 6937 will have four *additional* homework assignments, all of which are literature reflections. Note that in the course content table on the previous page, the 4th column indicating the due dates does not necessarily align with the lecture dates in the first column. See the canvas page “Homework Assignments” for more information and links to assignment prompts and rubrics. You may correspond with your classmates about their content and use outside resources, but each student is expected to turn in their own unique work which will be subject to plagiarism and AI checks. You may not plagiarize or use an AI text generator to complete your homework.

Teaching Assistants: We have graduate TAs and undergraduate TAs on our teaching team. Please use them as the knowledgeable resources that they are. All TAs have either taken my class or served as a TA previously. Each student is designated one TA. In most cases, they should be your first point of contact if you have any questions about the content of this course. See the Canvas page “Teaching Assistants” for TA bios and a link to the TA designations.

Late policy: “The due dates are the due dates.” I only accept quiz, homework, and exam submissions made before the due date, unless you have a documented extenuating circumstance that is verified by requesting a letter from the UF Dean of Students Office (DSO) declaring you were sick or otherwise experiencing an extenuating circumstance on the due date. They require documentation, so plan accordingly.

<https://care.dso.ufl.edu/instructor-notifications/>

Discord: The teaching team moderates a Discord page where you can ask and answer questions about genetics! Someone from the teaching team will try to always respond within a few hours between 8 AM and 8 PM most days. This means that if you are scrambling to finish a quiz at 11:30 PM, you may not get answers from myself or a TA until it is too late, though your fellow classmates might be able to point you in the right direction. Please read the rules for the page and be respectful.

Appealing grades: The teaching team is always happy to discuss why answers you submitted did or did not receive full credit -- helping you understand genetics is our job! However, in the case of the essay questions in this course, we will not regrade questions until the end of the course, and only if it could make the difference between letter grades. So feel free to bring questions to office hours or email your TA to clarify why your answer did not receive full credit, but we will not reconsider the score you were given unless it matters for your letter grade at the end of the class.

Technical and digital literacy skills: As with most online classes, this class requires students to interact with various technologies. These include:

- Using Canvas
- Using email with attachments
- Creating and submitting files in commonly used word processing program formats
- Downloading and installing software
- Using spreadsheet programs
- Using presentation and graphics programs like Power Point
- Using apps in digital devices like Discord
- Using web conferencing tools and software like Zoom
- Using online libraries and databases to locate and gather appropriate information
- Using computer networks to locate and store files or data
- Using online search tools for specific academic purposes, including the ability to use search criteria, keywords, and filters
- Analyzing digital information for credibility, currency, and bias (e.g., disinformation, misinformation)
- Properly citing information sources
- Preparing a presentation of research findings

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.

Technical assistance: contact the UF Help Desk at: Learning-support@ufl.edu | (352) 392-HELP - select option 2 | <https://it.ufl.edu/helpdesk/> OR Library Help Desk support <https://uflib.ufl.edu/find/ask/>

Students requiring accommodations: Students impacted by learning barriers who would like to request academic accommodations should connect with the Disability Resource Center (<https://disability.ufl.edu/get-started/>).

Academic integrity: UF students are bound by The Honor Pledge, which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code.” On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://policy.ufl.edu/regulation/4-040/>) specifies several behaviors that are in violation of this code and possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructors in this class.

Students are encouraged to discuss course-related materials with each other from the course, help each other understand concepts, study together, and discuss quiz questions and homework assignments with each other. However, the following is considered academic dishonesty, and the instructors expect that no student will ever do any of the following:

- Have another person complete a quiz, test, or homework assignment in this course
- Copy another student’s exam answers in this course
- Collaborate with anyone during an exam in this course
- Discuss the questions or answers of an exam with other students while the exam window is still open.
- Manipulate and/or distribute any materials provided in this course for any dishonest purpose (including course lecture slides).
- Use any materials provided by a previous student taking the course that show assessment answers.

For information about the privacy policies of the tools, see the links below:

- Instructure (Canvas): [Instructure Privacy Policy](#), [Instructure Accessibility](#)
- Zoom: [Zoom Privacy Policy](#), [Zoom Accessibility](#)
- YouTube (Google): [YouTube \(Google\) Privacy Policy](#), [YouTube \(Google\) Accessibility](#)
- Microsoft: [Microsoft Privacy Policy](#), [Microsoft Accessibility](#)
- Adobe: [Adobe Privacy Policy](#), [Adobe Accessibility](#)

For more information on UF Academic Policies & Resources, please visit: <https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>

Cover Sheet: Request 22843

BS-BIF Minor

Info

Process	Minor Modify/Ugrad
Status	Pending at CALS - College of Agricultural and Life Sciences
Submitter	Valerie De Crecy vcrcy@ufl.edu
Created	4/16/2026 4:52:16 PM
Updated	8/19/2026 2:06:16 PM
Description of request	This proposal updates the Bioinformatics Minor that was created over 12 years ago to better reflect modern practice in computational biology. While maintaining the same total credit requirement (15–16 credits), the revised curriculum replaces a primarily tool-based approach with stronger training in programming, data analysis, artificial intelligence, and computational genomics. The revision improves quantitative rigor, workforce readiness, and alignment with contemporary research methods without increasing time to degree.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Microbiology and Cell Science 60100000	Eric Triplett		4/21/2026
No document changes					
College	Pending	CALS - College of Agricultural and Life Sciences			4/21/2026
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					

Minor|Modify for request 22843

Info

Request: BS-BIF Minor

Description of request: This proposal updates the Bioinformatics Minor that was created over 12 years ago to better reflect modern practice in computational biology. While maintaining the same total credit requirement (15–16 credits), the revised curriculum replaces a primarily tool-based approach with stronger training in programming, data analysis, artificial intelligence, and computational genomics. The revision improves quantitative rigor, workforce readiness, and alignment with contemporary research methods without increasing time to degree.

Submitter: Valerie De Crecy vcrcy@ufl.edu

Created: 4/16/2026 4:41:10 PM

Form version: 1

Responses

Name Bioinformatic

Code BIF

Effective Term Earliest Available

Effective Year Earliest Available

Proposed Changes Many new bioinformatic classes have been added to the UF curriculum since the BIF minor was initially created. Changes have been made to the core classes to increase flexibility, and additional classes have been added as electives. The total numbers of credits have not changed.

Pedagogical Rationale/Justification The revised minor prepares students for graduate study and employment in genomics, biotechnology, agriculture, and biomedical data science by emphasizing computational thinking and reproducible data analysis. Students will graduate with practical experience in programming, quantitative interpretation, and modern omics analysis while preserving flexibility.

Impact on Other Programs There should be no significant impact on course loads as the number of BIF students/year is small and it will spread them out among more core classes.

Catalog Copy Yes

Bioinformatics Minor Curriculum Revision

Summary

This proposal updates the Bioinformatics Minor that was created over 12 years ago to better reflect modern practice in computational biology. While maintaining the same total credit requirement (15–16 credits), the revised curriculum replaces a primarily tool-based approach with stronger training in programming, data analysis, artificial intelligence, and computational genomics. The revision improves quantitative rigor, workforce readiness, and alignment with contemporary research methods without increasing time to degree.

Key Changes at a Glance

Area	Current Structure	Proposed Structure	Benefit to Students
Credit load	15–16 credits	15–16 credits (unchanged)	No additional time to completion
Entry skill	Programming	Programming, data analysis, AI, or algorithms options	Flexible computational foundation
Data science training	Limited	Dedicated analysis & visualization course option	Quantitative literacy
AI/Algorithms exposure	None	AI or Bioinformatic Algorithms option	Modern computational skills
Genomics depth	Introductory	Computational Genomics & Epigenomics	Advanced omics competence
Research experience	Independent research	Independent research retained	Hands-on learning maintained
Electives	Mostly biology topics	Genomics, AI, modeling, data science	Better career alignment

Current catalog entry : https://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/BIF_UMN/

Revised Catalog entry:

This minor is open to all students who have a science background and who meet course prerequisites.

It is particularly appropriate for students majoring in biology, mathematics, microbiology and cell science, statistics and zoology, and for students who are interested in professional programs in dentistry, medicine and pharmacy. The focus is on computational, data-driven, and AI-enabled analysis of biological data.

Microbiology and cell science majors should meet with their academic advisors before applying to this minor to plan a program of study. No more than three credits of the required courses below and 3-4 credits of the electives below can count toward both the major and the minor.

There are 12 required credits, consisting of three courses and a capstone independent study course, and one 3 or 4 credit elective courses.

Required courses

BSC 2891	Python Programming for Biologists OR	3 Credits; Spring
ALS3200C	AI in Agricultural and Life Sciences OR	3 credits; Fall and Summer
CGS 4144	Introduction to Bioinformatic Algorithms	3 Credits; Fall
BSC 4434C	Introduction to Bioinformatics	3 Credits; Fall
MCB 4324	Computational Genomics and Epigenomics OR	3 Credits; Spring
MCB4794	Analysis, interpretation, and visualization of microbiological data	3 Credits; Fall
BSC4913***	Independent Research in Bioinformatics	3 Credits; Fall and Spring
Total 12 Credits		

*** BSC4913 has very specific course requirements, click [HERE](https://microcell.ufl.edu/masters-certificates/bioinformatics-minor/) (link to <https://microcell.ufl.edu/masters-certificates/bioinformatics-minor/>) to research these requirements.

Electives: Choose one course

AGR3033	Genetics	3 Credits; Fall
HOS 3305	Introduction to Plant Molecular Biology	3 Credits;
MAP 4484	Modeling in Mathematical Biology	3 Credits; Spring
PCB 3063	Genetics	4 Credits; Fall, Spring
PCB 4674	Evolution	4 Credits; Fall, Spring, Summer
MCB4794***	Analysis, interpretation, and visualization of microbiological data	3 Credits; Spring
MCB 4322	Microbial comparative genomics	3 Credits; Spring

PCB4666	Human Genomics	3 credits; Spring
BME 4760	Biomedical Data Science	3 credits
BSC 4892	AI in Biology	3 credits
ALS3200C***	AI in Agricultural and Life Sciences	3 credits; Fall and Summer
BSC 2891***	Python Programming for Biologists	3 Credits; Spring
EEL 3872	Artificial Intelligence Fundamentals and Applications	3 credits
MCB 4324	Computational Genomics and Epigenomics	3 Credits; Spring
MCB 4320C	The Microbiome	3 Credits; Spring
BSC4914%	Advanced Independent Research in Bioinformatics	3 Credits; Fall and Spring

*** Only if not chosen as a core requirement. %Same course requirements as BSC4913

Cover Sheet: Request 21879

MCB 7922 - Increase Max Repeatable Credits

Info

Process	Course Modify Grad
Status	Pending at GRAD - Graduate Curriculum Committee
Submitter	Jacqueline Lee jlee9@ufl.edu
Created	9/5/2025 9:40:13 AM
Updated	8/7/2026 4:48:06 PM
Description of request	Increase repeatable credits for MCB 7922 to 16.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Microbiology and Cell Science 60100000	Eric Triplett		5/10/2026
No document changes					
College	Approved	CALS - College of Agricultural and Life Sciences	Anne Mathews	Per MCB: Our distance Ph.D. students complete the program part-time and may be active for eight years. It would be unusual for a student to need 16 credits of the course, but it could be possible.	8/7/2026
No document changes					
Graduate Curriculum Committee	Pending	GRAD - Graduate Curriculum Committee			8/7/2026
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					

Modify Course Request (v.2026) for request 21879

Info

Request: MCB 7922 - Increase Max Repeatable Credits

Description of request: Increase repeatable credits for MCB 7922 to 16.

Submitter: Jacqueline Lee jlee9@ufl.edu

Created: 2/24/2021 2:11:33 PM

Form version: 1

Responses

Current Prefix MCB

Course Level 7

Number 922

Lab Code None

Course Title Journal Colloquy

Effective Term Earliest Available

Effective Year Earliest Available

Requested Action Other (selecting this option opens additional form fields below)

Change Course Prefix? No

Change Course Level? No

Change Course Number? No

Change Lab Code? No

Change Course Title? No

Change Transcript Title? No

Change Credit Hours? No

Change Variable Credit? No

Change S/U Only? No

Change Contact Type? No

Change Rotating Topic Designation? No

Change Repeatable Credit? Yes

Repeatable Credit From Non-repeatable to Repeatable

Maximum Repeatable Credits 16

Change Course Description? No

Change Prerequisites? No

Change Co-requisites? No

Rationale PhD students in our program take a minimum of one journal colloquy course each fall and spring semester. We need a higher number of repeatable credits to ensure PhD students can continue enrolling in a journal colloquy course for the duration of the PhD program.