

## **WIS 4934/6934 - Biodiversity**

*Linking biodiversity patterns and processes across scales of space and time*

*T 1:55-2:45 LIT 233 & Th 1:55-3:50 MAT 0004*

*Fall 2019, 3 credits*

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**Instructor:** Dr. Morgan Ernest

**Office Location:** Building 150, Room 2

**Phone:** 352-294-2082

**Email** (preferred mode of contact): [skmorgane@ufl.edu](mailto:skmorgane@ufl.edu)

**Website:** [skmorgane.github.io/biodiversity-course](https://skmorgane.github.io/biodiversity-course)

**Office Hour:** by appointment

**Prerequisites:** None

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### **DESCRIPTION/ORGANIZATION**

Biodiversity emerges from a combination of ecological and evolutionary processes operating across many scales of space and time. This course examines the concept of biodiversity and the processes that generate important patterns of biodiversity in ecology.

### **COURSE OBJECTIVES**

- Define the dimensions of biodiversity through discussion and reading the primary literature
- Discuss patterns of biodiversity from the literature and how they relate to ecological processes
- Use current literature to assess current gaps in our scientific understanding of biodiversity
- Design research questions to gain experience with addressing and communicating gaps in scientific knowledge
- Design a presentation to communicate to an audience of broad backgrounds

### **TEXT AND REQUIRED SUPPLIES**

- There is not a required or recommended text book for this class
- Readings for this class come from journal articles available electronically through UF journal subscriptions. Links to papers are made available through the course website ([skmorgane.github.io/biodiversity-course](https://skmorgane.github.io/biodiversity-course)).
- Laptops: On specific days (noted on the course schedule) laptops or tablets will be required to participate in literature search and basic computational activities. If you do not have a laptop or tablet, please let the instructor know and access to one can be arranged.

- Software: We will be using R (a freely available statistical programming environment) to learn about quantitative approaches to studying biodiversity patterns. R is required. It is also recommending that student load RStudio – a freely available integrated programming environment – which makes working with R more user friendly.

## **COURSE POLICIES**

Attendance Policy: Life is complicated and sometimes unpredictable. Grading (see below) is structured so that students may have up to 2 excused absences without impacts on grades. Excused absences must be consistent with university policies in the Graduate Catalog (<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>) and require appropriate documentation. Additional information can be found here: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Additional missed discussions can be made up by providing written answers to the questions assigned for the readings for the day(s) missed.

Class Conduct: Because this course is discussion-based, an effective learning environment is critically dependent on all students feeling safe and supported in the classroom so that everyone feels comfortable engaging in discussion. I will do my best to foster an open and positive environment for all students but to achieve this I need students to engage in discussions in a constructive and positive manner and listen to other points of view with an open-mind. It is okay to disagree with me or your classmates, and discussions on differing points of view are enthusiastically encouraged, but must be done with empathy for the other people in the classroom. Sometimes we make mistakes during discussion because we did not think sufficiently about our word choice and that is okay. When this happens, students are expected to apologize sincerely to the affected person.

## **GENERAL COURSE STRUCTURE AND EXPECTATIONS**

*This course is designed to provide advanced training for graduate students in a specialized area of ecology.* This course is a mixture of lecture, class discussion of primary literature, hands-on experience through class activities, and a major project. While there is some lecturing, class participation, intellectual engagement with topics, and discussion participation are the main ways students will learn in this class. The first hour of Tuesdays and Thursdays are devoted to lecture and class discussions. You are expected to come prepared to discuss the assigned papers. The second hour on Thursdays are devoted to either class activities or working on group projects.

### ***Course Grading***

60% of grade will be based on a class project and presentation (330 points), 40% will be based on class participation in discussion\* (220 points, 10 points/class day).

\*Students uncomfortable with the expectation of participating in a graduate discussion should talk to me about a written alternative.

<b>Percent</b>	<b>Grade</b>
90.0 - 100.0	A
87.0 - 89.9	A-
84.0 - 86.9	B+
81.0 - 83.9	B
78.0 - 80.9	B-
75.0 - 79.9	C+
72.0 - 74.9	C
69.0 - 71.9	C-
66.0 - 68.9	D+
63.0 - 65.9	D
60.0 - 62.9	D-
0 - 59.9	E

## **UF POLICIES**

### ***University Policy on Accommodating Students with Disabilities***

The goal of the course is to create an environment where all students have an equivalent learning environment. If you need accommodations so that your opportunity to learn the material is equivalent to others, please do not hesitate to let me know. Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

### ***Course Evaluation***

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

### ***University Policy on Academic Misconduct***

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.php>.

### ***Netiquette and Communication Courtesy***

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. All in-person and electronic communications related to this course are covered by the course's code of conduct statement.

**CAMPUS RESOURCES:**

**Health and Wellness:**

**U Matter, We Care:** U Matter, We Care: If you or someone you know is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu), 352-392-1575, or visit [umatter.ufl.edu/](http://umatter.ufl.edu/) to refer or report a concern and a team member will reach out to the student in distress

**Counseling and Wellness Center:** Visit [counseling.ufl.edu/](http://counseling.ufl.edu/) or call 352-392-1575 for information on crisis services as well as non-crisis services.

**Sexual Assault Recovery Services (SARS)** Call 352-392-1161 for 24/7 information to help you find the care you need, or visit [shcc.ufl.edu/](http://shcc.ufl.edu/).

**University Police Department** Visit [police.ufl.edu/](http://police.ufl.edu/) 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; [ufhealth.org/emergency-room-trauma-center](http://ufhealth.org/emergency-room-trauma-center)

**Academic Resources:**

**E-learning technical support,** Contact the UF Computing Help Desk at 352-392-4357 or via e-mail [athelpdesk@ufl.edu](mailto:athelpdesk@ufl.edu).

**Career Connections Center,** Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services [career.ufl.edu/](http://career.ufl.edu/)

**Library Support,** <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center,** Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring. <https://teachingcenter.ufl.edu/>.

**Writing Studio,** 2215 Turlington Hall, 846-1138. Help brainstorming, formatting, and writing papers. <https://writing.ufl.edu/writing-studio/>.

**Student Complaints On-Campus:** [sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/](http://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/)

**On-Line Students Complaints:** <http://www.distance.ufl.edu/student-complaint-process>.

## CLASS SCHEDULE

The topics, readings, and activities for each week can be found at the course website:

<https://skmorgane.github.io/biodiversity-course/>