BSC 5824 Biogeography

Fall 2021

Instructor: Dr. David G. Jenkins, david.jenkins@ucf.edu, BIO 111B
Web Page: http://sciences.ucf.edu/biology/d4lab/biogeography
Text: Lomolino et al. Biogeography. 5th edition, Sinauer. ISBN 9781605354729
Other Readings: See below + Course Web Page for schedule and pdfs there

Course Description: Biogeography is the study of geographic variation in biota. Spatial scales considered range from local to global and require consideration of temporal scales ranging from seasonal to epochal. Organizational levels examined range from the gene to the biome. Biogeography is a field at the intersection of ecology and evolution: students are expected to be conversant in both fields for this course. Course structure will lean toward discussions of text chapters and readings.
Objectives for students include:

(a) master major concepts of biogeography
(b) understand the geological, evolutionary, and ecological processes that determine biogeographic patterns; and
(c) connect biogeography concepts with conservation biology.

Course Prerequisites/Corequisites: An ecology course and an evolution course are recommended. Prerequisites = graduate standing or consent of instructor.

Performance Evaluation:

Midterm	25.0 %
Discussion Leadership and Participation	25.0
Comprehensive Final Exam	25.0
Research Project Participation	25.0

Grade scale : A = [90-100], B = [80-89.9], C = [70-79.9], D = [60-69.9], F < 60

Course Schedule: Please see https://sciences.ucf.edu/biology/d4lab/biogeography

Midterms and Final Exam: There will be two take-home (open-book) exams: the midterm covers material of the first half of the semester (see schedule below). The final exam is comprehensive. Questions will require you to think, analyze information and apply what you have learned from lectures, discussions, the text and other readings in cogent answers.

Discussion Leadership and Participation: Roughly ½ of the course time will be spent in structured discussions of readings. Dr. Jenkins will lead-off the semester to demonstrate what is intended for discussion leaders, followed by students who will lead remaining discussions. To lead a discussion is to to help others understand the concepts and evidence of subject readings.

This course requires that you be familiar with ecological and evolutionary concepts and evidence to participate in advanced-level reading and discussions. In other words, before you read the text in advance of class each week, you may need to (a) read sections of intro-level ecology and evolution texts each week, and (b) conduct some literature searches and read to acquaint yourself with key journal articles. The success of this course (for you and others) depends on your active participation in discussions, and courtesy to others during discussions. Therefore, read a lot, think, be prepared, and be ready to talk and listen.

Research Project: You will participate in a research project (think of this as the "lab" component). Your group will describe progress ***weekly***. At the end of the semester, you and your team colleagues will present to the class and submit a report to Dr. Jenkins, including all data and literature (pdf's) acquired.

Your Responsibilities:

1. Lead discussions, according to the schedule to be worked out. As a discussion leader, you are free to structure discussions in a format you think will work best (e.g., focus questions, teams, debates, etc.).
    - As discussion leader, you serve as the expert, with the goal of helping others to become experts on the subject. A big part of this to be a critical reader - ask questions of the paper, and be skeptical. This means you may have to do some extra reading (texts, journal articles), and be prepared to actively take charge. Feel free to consult with Dr. Jenkins in advance.
    - Discussions don't work well if focused on simple factual questions (e.g., Where? What? and Who?).
    - Discussions work best when focused on questions of WHY? and SO WHAT? and DO YOU BUY IT? and WHAT'S NEW?
    - **Be creative!**
2. Participate fully, which means you need to be well-read, with notes and questions you wrote while reading.
    - Budget your time to read all week, do background reading, and think. *You cannot read an hour before class and consider yourself prepared* - this is dense reading on difficult topics that are likely to require some background reading.
    - Participation is active: just being there is not participating - come out of that shell! You cannot sit quietly in the background and expect to be counted as participating.

Other Business:

1. COVID-19: Dr. Jenkins will be masked in Rm. 415 for classes, and ***expects you to do the same***. Class will be recorded on Zoom (see course web page) for anyone who needs to catch up due to the pandemic. ***Feel free to participate via Zoom each week:***
    - **Meeting ID: 933 5172 9286**
    - **Passcode: biogeo**
2. Participation is important for your learning but attendance in Rm 415 is not in your grade.
3. Abide by the UCF rules for student conduct [http://www.ucf.edu/goldenrule]
4. The instructor reserves the option to adjust the rules, schedule, and grading system outlined in this syllabus as needed to maintain the best possible educational integrity of the course. Any such changes will be announced and a revised syllabus will be distributed.

5. Course Accessibility: The University of Central Florida is committed to providing access and inclusion for all persons with disabilities. Students with disabilities who need access to course content due to course design limitations should contact the professor as soon as possible. Students should also connect with Student Accessibility Services (SAS) <http://sas.sdes.ucf.edu/> (Ferrell Commons 185, sas@ucf.edu, phone 407-823-2371). For students connected with SAS, a Course Accessibility Letter may be created and sent to professors, which informs faculty of potential course access and accommodations that might be necessary and reasonable. Determining reasonable access and accommodations requires consideration of the course design, course learning objectives and the individual academic and course barriers experienced by the student. Further conversation with SAS, faculty and the student may be warranted to ensure an accessible course experience.
6. Campus Safety: Emergencies on campus are rare, but if one should arise during class, everyone needs to work together. Students should be aware of their surroundings and familiar with some basic safety and security concepts.
    - In case of an emergency, dial 911 for assistance.
    - Every UCF classroom contains an emergency procedure guide posted on a wall near the door. Students should make a note of the guide's physical location and review the online version at <http://emergency.ucf.edu/emergency_guide.html>.
    - Students should know the evacuation routes from each of their classrooms and have a plan for finding safety in case of an emergency.
    - If there is a medical emergency during class, students may need to access a first-aid kit or AED (Automated External Defibrillator). To learn where those are located, see <http://www.ehs.ucf.edu/AEDlocations-UCF>
    - To stay informed about emergency situations, students can sign up to receive UCF text alerts by going to <https://my.ucf.edu> and logging in. Click on "Student Self Service" located on the left side of the screen in the toolbar, scroll down to the blue "Personal Information" heading on the Student Center screen, click on "UCF Alert", fill out the information, including e-mail address, cell phone number, and cell phone provider, click "Apply" to save the changes, and then click "OK."
    - Students with special needs related to emergency situations should speak with their instructors outside of class.