ECOLOGY AND EVOLUTION (BIOL 3250 F) -- Fall Semester 2023

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Office Hours: MW 1:30-3,F 1-3, other times by appointment.

Texts: Smith, R.L., and T.M. Smith. 2001. Ecology and field biology. 6th ed. Benjamin Cummings, San Francisco, CA. 771 pp.
Hall, B.K., and B. Hallgrimsson. 2008. Strickberger's Evolution. 4th ed. Jones and Bartlett, Boston, MA. 762 pp. (Or 5th ed., 2013)
**STUDENTS ARE RESPONSIBLE ON EXAMS FOR ALL INFORMATION FROM LECTURE NOTES, HANDOUTS AND ASSIGNED READINGS.

Lecture: four 100-pt. lecture exams.
*Exam Dates: Sept 13, Oct 18, Nov 8, Dec 7 (Thurs, 2:45 pm)

Lab is about 1/3 of course grade, from writeups of field/laboratory exercises; including original investigations and computer simulations.

LECTURE SCHEDULE

Week #	Topic	***Evolution (V)***,	Chapters in: otherwise Ecology
1	Introduction to Ecology		1
1	History and Fundamentals of Evolutionary Theory	***V1-3***	
2	The Nature of Variation	***Skim V9-10***	
2-3	Species and Phylogenies	***V11, Skim V12***	
3	"Evo-Devo"	***V13***	
4-5	Population Genetics and the Mechanisms of Microevolution Patterns of Macroevolution	***V21-23*** ***V24***	
6-7	Physical and Physiological Ecology Conditions and Resources Nutrient/Mineral Cycles Niche Concepts		5,6,8 Skim 4,7,9 2,27 Skim 25,26 pp. 253-62;383-84
8-9	Population Ecology: Demography, Dynamics, & Density-dependence		10,11, skim 12
10-11	Reproductive Ecology & Life Histories		13
11-12	Interspecific Competition		14
13	Foraging Ecology, Predator-Prey		15,16
14	Community Structure & Dynamics, Stability, Diversity, & Complexity		20
15	Ecosystem Development, Island/Landscape Ecology, Conservation Biology and Preservation of Biodiversity		21,22,23

Tentative Laboratory/Field Schedule	Assignment (pts.)
Week 1 -- Intro to Inland Coastal Plain Ecosystems (field) Hypotheses (10) (***READ Ecol. pp. 12-17; Skim Ch. 28-31 + Appendix A for ideas***)	
2 –- Phylogenetic Rules and Reconstruction	Assignment (10)
3 -- Population Genetics Computer Simulations	Scientific Paper (15)
4 –- Introduction to sampling	Assignment (10)
5 –- Field or simulation (TBA)	Assignment or Paper (20-2

Ecology and Evolution (BIOL 3250) – Fall 2023 Expectations of Students

1. The text chapters will serve as your introduction and background to the lecture topics. Therefore, read them carefully, preferably before the lecture; otherwise, you may find that you are lost! Success in this course demands that you attend every day and come to class prepared.

2. On weeks that I inform you we will be in the field, be prepared to leave for the field promptly at lab time--this includes APPROPRIATE ATTIRE! It may be hot or cold. We will be encountering briars, chiggers, fire ants, ticks, mosquitoes, and possibly snakes; you are responsible for your own protection against these as well as the climatic elements (I can't control either). You may not make up missed labs; I will deduct points from your grade for any lab absences beyond one.

3. An important part of this course is the writing of laboratory reports and scientific papers. We will be collecting data in the field and lab, and analyzing these data as a group. You will be receiving written and verbal instructions for preparing a scientific paper early in the semester. I expect you to share the basic data and results of certain analyses. I expect each and every person to do his or her own writing, however. Copying of phrases or sentences from references or even slightly modified phrases and sentences "borrowed" from these sources constitutes **plagiarism** and will not be tolerated in this course. Putting quotation marks around such phrases, even with proper attribution (citation) is not much better; the idea is to use your own unique set of words.

Borrowing of sentences or paragraphs from your own previously written papers or others' papers is also plagiarism. I keep a file of the best papers from previous classes. I will also use electronic means of detecting plagiarism. Any attempt at plagiarism on any paper will earn the student a grade of zero and will be reported to the Dean of Students office. Repeat violations may warrant additional penalties or disciplinary action, as described on the VSU Biology Department Home Page[1].

Despite the above admonition, a few students nearly every semester are foolish enough to "test" the system by passing off papers that contained portions plagiarized from earlier papers or from the cited sources or uncited sources. REMEMBER: (1) I KEEP COPIES OF EARLIER STUDENT PAPERS AND OF IMPORTANT PRIMARY REFERENCES; (2) I CONDUCT WEB SEARCHES OF ANY AND ALL SUSPECT PASSAGES.

4. Disruptive Behavior: a) absolutely no cell phone use in lecture or lab/field; b) do not come to class late or leave early (being late to lab may be counted as absence!); c) no talking or voluntary outbursts in lecture… Note: a sneeze is involuntary, the reflexive "bless you" is voluntary and therefore controllable; just repress that urge, please!

5. Academic Dishonesty: cheating of any kind on an assignment or exam will not be tolerated and will result in failure on assignment, and possibly in the course, plus other penalties as may be allowed by VSU policy (consult the VSU Student Handbook[2]).

6. Each student is responsible for promptly making up any material missed due to absence, regardless of reason. Attitude, attendance, cooperation, etc. are appropriate criteria for me to consider when assigning a final grade, especially when the student's grade is "borderline." Excessive absences, conveyance of negative attitudes, lack of attentiveness or cooperation will not incline me toward giving you that extra "benefit of the doubt" in such decisions.

[1] http://www.valdosta.edu/biology/

[2] http://www.valdosta.edu/academics/academic-affairs/vp-office/academic-dishonesty.php

Statement on COVID-19 Safety Protocols

VSU, the CDC, and I strongly encourage students to be vaccinated against COVID-19 with the updated (bivalent) vaccines, and that process is both easy and free. If you should have symptoms that you feel might be the result of COVID-19, you should get tested. Both vaccination and testing can be done at the Student Health Center—call them at 333-5836 for an appointment.

If you have been **exposed** to COVID-19, you should:
> Practice physical distancing and wear a well-fitting mask for 10 days.
> Monitor yourself for symptoms of COVID-19.
> Test 5 days after exposure, or sooner if you have symptoms.

Alternatively, you may make an appointment with the Lowndes County Public Health Service COVID testing center by calling 844-955-1499, and do not come to class until you receive a negative test and your symptoms clear (or 10 days after symptoms start if you do not get a test). This is a face-to-face course and you are expected to be in class (lecture and lab); any special accommodations will require documentation (including from Student Affairs). For whatever reason you might miss class, you must inform the instructor ASAP you will be (or have been) absent and receive instructions for making up work.

Latest from CDC and VSU on COVID-19

With the many variants, you are urged you to keep your vaccinations updated and especially to get vaccinated if you have not already been. Vaccination, followed by periodic bolo-76 (