

ECOLOGY AND EVOLUTION (BIOL 3250 A) -- Spring Semester 2024

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Biol. Dept. 333-5759

Office Hours: M 2-3,W 11-1, 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 Bartles8(im aS8(ipmon, MA)Tj(. 762 pp.)Tj0 Tc ()Tj0.002 Tc 0.98 50 T
im aSINFORMATION FROM LECTURE NOTES, . HANDOUTS.1, LAZEVIEW, MTERIA

1	Introduction to Ecology	1
1	History and Fundamentals of Evolutionary Theory	
2	The Nature of Variation	
2-3	Species and Phylogenies	
3	"Evo-Devo"	
4-5	Population Genetics and the Mechanisms of Microevolution Patterns of Macroevolution	
6-7	Physical and Physiological Ecology Conditions and Resources	5,6,8 Skim 4,7,9 2,27
	Nutrient/Mineral Cycles Niche Concepts	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.)

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- 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)

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BIOL 3250 Expectations (cont'd.)

Ecological fieldwork can be fun and rewarding, but at times it can be hard work under rigorous conditions. If you are not used to either of the latter two, be prepared for a learning experience that may enrich your life in ways you'll only begin to appreciate now. And since we'll all be doing this together, adopting a positive attitude from the start will improve the already likely prospects of this being a positive experience for everyone.

7. If you should have any kind of question, problem, comment, complaint, crisis, etc., involving this course, I'm the appropriate person for you to talk to. Please come by and see me about it immediately; that's what I'm here for. Feel free to stop by anytime (but try office hours first).

8. **STUDENTS WITH DISABILITIES:** Students requiring classroom or testing accommodations because of documented disabilities should discuss their needs with the instructor at the beginning of the quarter. To register with the Access Office, call 245-2498 (voice) or 219-1348 (tty). For more information on disability and Title IX, visit:

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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 333-5886 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.