Valdosta State University Department of Biology BIOL 3250, Section E: Ecology & Evolution Course Syllabus, Spring 2024

Instructor: Dr. Erin Grabarczyk Office: Bailey Science Center (BSC) 2216 Office Phone: 229.333.7380 E-mail: egrabarczyk@valdosta.edu In-person office hours: Tuesday 3:15-4:45PM, Thursday 3:15-4:45PM, or by appointment. Virtual office hours: Monday 8AM-10AM on TEAMS, or by appointment.

Lecture: TR 2-3:15PM, BSC 1202 Lab: Monday 12-2:50PM, BSC 1043

Required text: Ecology: The Experimental Analysis of Distribution and Abundance (6th Edition). Charles Krebs <u>AND</u> any general textbook on evolution:

Herron JC, Freeman S. Evolutionary Analysis. Pearson.Bergstrom CT. Evolution. Norton.Futuyama DJ. Evolution. Sinauer Associates, Inc.Hall BK. Evolution Principles and Processes. Jones and Barlett.Ridley M, Evolution. Blackwell.

Course overview

BIOL 3250. Ecology and Evolution. 4 Hours.

Prerequisites: BIOL 1107, 1107L, BIOL 1108, 1108L, and BIOL 3200.

An introduction to major topics in ecology and evolution, including population, community, and ecosystem ecology; Darwinian theory of evolution through natural selection; microevolution and macroevolution. Computer and field labs will provide exposure to both evolutionary theory and field ecology.

Standards

Education outcomes for BS Degree in Biology: 1, 2, & 5. VSU General Education Outcomes: 3, 4, 5, & 7.

Class Policies

- **Classroom etiquette:** Please be on time. Please turn off your cell phone. If you are disrupting the class, I will ask you to leave. Do not use the internet in class unless the lab requires it. Be respectful of yourself, your classmates, and your instructor.
- Ask questions: If you have a question or don't understand something please let me know. I am more than willing to take as much time as necessary to help you understand a concept, but you have to let me know.
- Late work: Once during the semester you may turn in late work for full credit. I will give you 48 hours to submit your work, no questions asked. Your assignment needs to be submitted on BlazeVIEW. After your one late work turn-in, late assignments will not be accepted.
- **Email:** Use your VSU account for e-mail communication.
- Lab completion: Lab attendance is mandatory and you must complete every lab in order to receive points for both lab participation as well as the assignment for that week.

- Cheating: You are responsible for making yourself aware of and understanding the policies and procedures in the Undergraduate Catalogs that pertain to Academic Honesty. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. [The policies can be found at http://valdosta.edu under Student Code of Conduct.] If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct. You will be given the opportunity to review the charge(s). If you believe you are not responsible, you will have the opportunity for a hearing. You should consult with your instructor if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test. All forms of academic dishonesty including, but not limited to collusion, fabrication, cheating and plagiarism are worthy of punishment according to the policy set forth by Valdosta State University. This includes doing your own work on lab assignments. While you are allowed to brainstorm with each other, it is expected that your answers are your own. Any assignments turned in with plagiarism or that are someone else's work will receive zero points. I will not tolerate any form of cheating.
- **GroupMe Policy:** As a class, you may decide whether or not you would like to have a GroupMe chat. However, Dr. G must be included in the chat as a moderator. Any chats for your section that do not include Dr. G will be reported and deleted.
- Extra credit: There will be no extra credit offered during the semester.
- Field trip attire: Throughout semester we will collect data and run experiments outside. On days we are outside, I recommend you wear walking shoes and dress for the weather. Acceptable clothes include pants, socks, and comfortable walking shoes. You may wish to bring a hat, insect repellent, drinking water, and wear sunscreen.

AI: VSU's <u>Academic Student Conduct Code</u> states that "no student shall engage in plagiarism, which is presenting the words or ideas of another person as if they were the student's own." Content generated by an Artificial Intelligence third-party service or site (AI-generated content) without proper citation is another form of plagiarism. If you are unsure about whether something may be plagiarism or another form of academic dishonesty, please reach out to me as soon as possible. Any assignments turned in with writing completed by AI will receive zero points.

Accommodation Statement: Students with disabilities who are experiencing barriers in this course may contact the Access Office (https://www.valdosta.edu/student/disability/) for assistance in determining and implementing reasonable accommodations. The Access Office is located in University Center Room 4136 Entrance 5. The phone numbers are 229-245-2498 (V), 229-375-5871. For more information, please visit VSU's Access Office or email: access@valdosta.edu. To request reasonable accommodations for pregnancy and childbirth, contact Ms. Myia Miller, Title IX Compliance Officer, at maburden@valdosta.edu. Please note, you will be required to provide documentation from an appropriately licensed medical professional indicating the requested accommodations are medically necessary.

Title IX Statement: Valdosta State University (VSU) upholds all applicable laws and policies regarding discrimination on the basis of race, color, sex (including sexual harassment and pregnancy), sexual orientation, gender identity or expression, national origin, religion, age, veteran status, political affiliation, or disability. The University prohibits specific forms of behavior that violate Title IX of the Education Amendments of 1972. Title IX of the Education Amendments of 1972 prohibits discrimination on the basis of sex in education programs and activities that receive federal funding. VSU considers sex discrimination in any form to be a serious offense. Title IX refers to all forms of sex discrimination committed against others, including but not limited to: sexual harassment, sexual assault, sexual misconduct, and sexual violence by other employees, students or third parties and gender inequity or unfair treatment based on an individual's sex/gender. The designated Title IX Coordinator for VSU is Ms. Selenseia Holmes. To view the full policy or to report an incident visit: <u>https://www.valdosta.edu/administration/student-affairs/title-ix/</u>

Grading Scale:

Letter	%	Points
А	90-100	738-820
В	80-89	656-737
С	70-79	574-655
D	60-69	492-573
F	<60	<492

Assessments:

3 Exams (100 points each) Final exam (150 points) In-lecture participation (50 points) Lab (330 points)

Here's another way to think about your grade:

	Total points	% grade
Exams	300	36.1%
Final Exam	150	18%
Lab	330	39.8%
Participation	50	6%

Break-down of the 330 lab associated points:

Lab simulations (6 x 10 points each = 50 points) QEP participation (25 points) Sound project (30 points) Environmental Report (25 points) Peer-review (20 points) Writing activities (50 points) Grant proposal (100 points) Poster (20 points)

Exam Dates:

- 1. Thursday, February 8th
- 2. Thursday, February 29th
- 3. Thursday, April 4th
- 4. Final Exam: Wednesday, May 1st 2:45 4:45 PM

Tentative Lab Schedule*

Week of	Lab	Lab topic	In-class and take-home assignment(s)**
Jan 8	1	Sound walk & scavenger hunt – outside!	Scavenger hunt (5 pts), QEP (5 pts), Sound bar (5 pts)
Jan 15	1	No lab this week	
Jan 22	2	Grand Bay field data collection – outside!	Reflection (15 pts)
Jan 29	3	Natural selection	Lab (10 pts), Enviro Report (25 pts)
Feb 5	4	Experimental design/How to cite a PRJA	Lab (10 pts), 1-page summary (10 pts)
Feb 12	5	Phylogenetic inference	Lab (10 pts), 1-page summary (10 pts)
Feb 19	6	In-class experimental design workshop	QEP (20 pts), Experimental Design Figure (10 pts)
Feb 26	7	Island Lizards	Lab (10 pts)
Mar 4	8	Peer-review for grant proposals	Peer-review (20 pts). GRANTS DUE MARCH 10 TH (100 pts)
Mar 11	-	No lab this week	
Mar 18	9	Climate change modeling	Lab (10 pts)
Mar 25	10	Demography – outside!	Lab (10 pts)
Apr 1	11	Project work day	Poster (20 pts)
Apr 8	12	De-extinction	Species assessment (20 pts)
Apr 15	13	Campus mist netting – outside!	

*Weather permitting. An updated lab schedule will be posted on the course BlazeView page if we need to re-arrange weekly topics.

******Assignments listed in *italics* are due at the end of that lab session (i.e. you will complete the assignment during lab), assignments listed in **bold font** will be due the following Monday at the beginning of lab.

Tentative	Lecture	Schedule*
rentative	Lecture	Schedule

Week of	Krebs Chpt**	Lecture topics	
Jan 8	**	Introduction to course, Evolution	
Jan 15	**	Natural selection, Bloom & Blast	
Jan 22	**	Patterns of selection, Other evolutionary processes	
Jan 29	**	Other evolutionary processes, Sexual selection	
Feb 5	**	Exam 1, Systematics & Phylogenetics	
Feb 12	**	Macroevolution, RIM	
Feb 19	1, 4-7	Co-evolution, A VERY brief intro to Ecology, Geographic	
		distributions	
Feb 26	22-25	Ecosystem cycles, Exam 2	
Mar 4	22-25, 3	Ecosystem cycles, Behavioral Ecology	
Mar 11	-	Spring break	
Mar 18	8-9	Plasticity, Population Ecology	
Mar 25	8-13	Population Ecology, Community Ecology	
Apr 1	18-19	Community Ecology, Exam 3	
Apr 8	17	Landscape Ecology, Conservation Biology	
Apr 15	17	Conservation Biology	
Apr 22	n/a	Sustainability	

*Subject to change.

** Chapter numbers will vary depending on your selected Evolution textbook (see above). Work with Dr. G to identify the specific chapters to read for each weekly topic.