

CLASS SYLLABUS BIOL 3250 ECOLOGY AND EVOLUTION Fall 2019

CLASS TIME: Lecture Rm. 2022 TR: 2:00-3:15 p.m.  
Lab Rm. 2073 A: M: 10:00 a.m. – 12:50 p.m.  
B: M: 2:00 – 4:50 p.m.  
C: T: 9:30 a.m. - 12:20 p.m.

INSTRUCTOR: Dr. Colleen McDonough

OFFICE HOURS: TR after class until 4:00 p.m., R 11:00 a.m. -12:00 p.m. or by appointment.

OFFICE: 2086 Bailey Science Center

PHONE: 333-5764 (my office), 333-5759 (main office)

EMAIL: [cmedonou@valdosta.edu](mailto:cmedonou@valdosta.edu)

TEXTS: 1) Any **Evolution** textbook for biology students should have the material I cover

2) Charles Krebs, 2009; Ecology 6<sup>th</sup> Ed. Benjamin Cummings, NY

COURSE OBJECTIVES: The objectives of the course are to

--cover evolutionary processes, modes of speciation, and mechanisms of micro- and macroevolution.

--examine biological principles at the organismal, population, community, and ecosystem levels of organization.

-- cover evolutionary and physiological processes that affect abundance and distribution of organisms

-- examine intraspecific and interspecific relationships such as competition and predation.

-- properties of communities and ecosystems such as energy flow and nutrient cycles.

Throughout the course

-- quantitative models are used to identify important variables and

-- principles of conservation are incorporated throughout

### Standards

VSU General Education Outcomes on webpage:

(<http://www.valdosta.edu/academic/VSUGeneralEducationOutcomes.shtml>) This course meets outcomes 3., 4., 5. and 7.

Department of Biology Educational Outcomes: This course meets outcomes 1., 2. and 5.

**PREREQUISITES** (must be completed prior to course): BIOL 1107, 1108, and 3200 with grades of 'C' or better.

**ATTENDANCE POLICY:** For lecture, I do not take attendance. Get the notes from another classmate if you miss a lecture. This does not mean that not attending class won't hurt your grade. In my experience those who do not attend lecture do not have high grades.

For laboratory, science is an act of doing. Therefore, you cannot get laboratory credit when not present. You must attend all the laboratories of this course to earn points from those labs. That means that if you missed lab, you cannot hand in any assignment associated with that lab. There are three sections of this course, so it is possible to make it up in another section. Tuesday morning is the last section of lab for the week. Make-up data collection if possible must be done by lab time the next week. No excuses about missing field labs are permitted except from a health professional. All accommodations must be discussed at the beginning of the semester.

**GRADING POLICY:** Your grade will be based on a total of 535 points; 400 will come from lecture tests, 135 from lab assignments.

Course grade: Grades will be distributed according to the following percentages:

A > 90% (481 or above)

B - 80% (428-480)

C - 70% (374-427)

D - 60% (321-373)

F < 60% (<321)

Lecture tests: There will be 4 lecture tests during the regular semester. I will average those 4 scores, get a percentage and multiply by 400. Example – if you have an 80% test average, your lecture score will be 320 ( $400 \times .80 = 320$ ).

Laboratory score: Add up the number of points you get from assignments. Divide by the number of points all the assignments are worth (given on each assignment). Multiply that proportion by 135. Add to lecture points for total. For example, if you have earned 75 pts out of 90 pts, you have a lab percentage of 83.3% ( $75/90$ ). Take  $83.3\% \times 135 \text{ pts} = 112.5 \text{ pts}$ . This score will be added to the lecture score for total pts.

According to the rubric above the person would have a “B” ( $320 + 112.5 = 432.5 / 535 = 0.808$ )

Optional Final: Because the final is optional, if you are happy with your grade at the end of the class, you do not have to take the final. If you wish to improve your grade, you can take the final and use it to replace your lowest lecture test. If you do worse on the final than the regular tests, the final test grade will not count (I still take the 4 highest scores in calculating final grade). Students who have missed a lecture test for any reason must take the final. **STUDENTS WHO BOMB A TEST AND THEN HAVE TO MISS ANOTHER TEST FOR WHATEVER REASON WILL NOT BE ABLE TO TAKE A MAKE-UP TEST.** If you study hard for every test, this circumstance will not come up.

Type of test questions: The lecture tests and the final will be a combination of multiple choice, short answer and essay questions. Questions will be based on information given during lecture and laboratory and reading material. Any questions, problems or complaints about grading must be made within one week of receiving an assignment/test back. No grade changes on assignments and tests will be made after that time.

**LABORATORY:** I will take roll at the start of lab. Anyone absent will be noted. The number of times a student is present **at the beginning of class** will be included in your laboratory score. You need to arrive to lab on time. This is especially true for field labs when we will be leaving immediately at the start of lab or we will be meeting on campus somewhere at the start of lab. Not finding parking is not an acceptable excuse. Leave early on laboratory days.

--**Field labs** – Labs when we are moving through brush (this may occur on or off campus): Suitable field clothes are required. **Acceptable clothes include pants (Jeans). Do not wear leggings or shorts. Wear socks and close-toed shoes (no sandals). You may wish to bring a hat, insect repellent, and water.** Individuals not wearing appropriate field clothes are endangering themselves. (Students in the past have gotten into thorns, contracted poison ivy and have had lots of red bug bites). Therefore, students not wearing appropriate clothes will not be allowed on the field trips and will not receive credit for that laboratory exercise.

--**Participation** will be noted: All individuals must participate fully in the labs every week. If I judge that you are lacking in participation by not collecting or analyzing data, by letting lab partners do all the work, by balking at doing any of the work – I will be noting any problems and will take this into consideration at the end of the course.

--**Lab lectures:** Any material covered during lab at any time should be studied for the lecture tests.

--**Lab assignments: (135 pts)** You will be having written assignments or quizzes to assess your understanding of the laboratories performed. These assessments will count for the 135 points of the course. A comprehensive lab report will be included in these points.

--**Late Assignment Policy:** For every day an assignment is late, points equaling one full grade will be subtracted from the points received. For example, if a lab assignment is late one day, I will grade it and then subtract 10% of the total from the score. Two days late will have 20% subtracted, etc.

**STUDENTS WITH DISABILITIES:** Students requiring classroom accommodations or modifications to testing (such as more time) need to be documented with the Access Office for Students with Disabilities. These students should discuss needs with me at the beginning of the semester. Students not registered must contact the Access Office, Farbar Hall, Phone; 245-2498. Website: <http://www.valdosta.edu/access/>

**FEDERAL PRIVACY ACT:** It is illegal to release personal information about an individual to others. Therefore, I cannot give out your grades to anyone but yourself. I cannot give them out over phone or

through email unless with written permission.

**CLASS BEHAVIOR:** Any student engaging in disruptive behavior will be asked to leave lecture or lab. They will forfeit the chance to hand in the work resulting from that laboratory.

**CELL PHONE / COMPUTER USE:** Cell phones should be turned off during class and lab. Laptop computers should be used for note taking only. I have peer-reviewed enough faculty from the back of the room to know that students are looking at social media, are on-line shopping and are even watching movies. I do not take roll in lecture so, therefore, you can do these other computer activities outside the classroom. These activities within the classroom are disruptive to others (especially those sitting behind) and affect the learning environment. I reserve the right to ask you to leave if **you are doing anything that distracts me and/or others during lecture. Such activities might include things mentioned above, texting, talking, or sleeping.**

**PLAGIARISM AND OTHER FORMS OF STEALING:** Adhere to the policy listed on the Biology Department's website (<http://www.valdosta.edu/biology/>. See list of items under "FOR STUDENTS"). If caught cheating a student will be given a zero for the assignment or test and be reported to the dean of students. If caught a second time, they will fail the course. Note the paragraph stating that plagiarism will not be tolerated and has serious consequences. This is an issue of integrity and ethics. If you are so time stressed that you can't individually do the work required in this course, consider withdrawing rather than face the repercussions and failing the course. To be clear, if you use someone else's work to write up yours, then you are plagiarizing. If you **allow** someone to write up your work, then you are plagiarizing and cheating and will be punished. If you rewrite another person's work, then you are plagiarizing even though it is not word for word. **IT IS NOT ACCEPTABLE TO MAKE GRAPHS, WRITE UP LAB REPORTS OR ASSIGNMENTS TOGETHER BECAUSE YOU ARE LAB PARTNERS. YOU ARE PLAGIARIZING. THIS GOES FOR GRAPHS AND TABLES AS WELL AS FOR TEXT. I WANT TO SEE WHAT YOU KNOW. Being someone's lab partner is not an excuse for similarity in style.** You may discuss the laboratories with your partners or others but you must then write every thing up separately. That is, you may not write together unless I specifically tell you to do this as a group assignment. Go home or to the library and write up your assignments on your own. **Do not let others look at your assignments.** Do not let others pressure you into showing them your assignments before class. Put them on my desk when entering the classroom. If I write on your paper that your work is too close in content to Joe-Blow's work, then consider this a reminder/warning and the next time there may be consequences.

If a student copies from another student's test or uses extra "test aids" during a test, he/she has cheated. If a student allows someone to copy from his/her test, he/she has cheated and will be punished. If a student paraphrases another author's work without citing the source, then he/she is plagiarizing (i.e., stealing).

Everyone has an individual writing style. It is almost like a fingerprint. Therefore, it is very easy to pick out similarities in writing and thus, potential plagiarism. This is the same for graphic depictions of data and tables. I will not tolerate the communal sharing of work. This goes for work done in previous semesters.

By taking this course, you agree that all required course work may be subject to submission for textual similarity review.

### **DATES TO REMEMBER**

Labor Day: Sept 2nd - NO CLASS

Fall Break: Oct 7-8th NO CLASS

Mid-Term: Oct 10th, Last day to drop and still get a W/P – Oct 17th

Thanksgiving: Nov 27-29<sup>th</sup> NO CLASS

Last day: Monday – Dec 9<sup>th</sup>

Final Exam: Wednesday, Dec 11<sup>th</sup>, 2:45-4:45 p.m. Same room as lecture

## WEEKLY LECTURE SCHEDULE – Tentative

Week	Topics
1	Introduction
2	nature of variation
3	mechanisms of evolution
4	speciation
5	micro and macroevolution
6	physiological ecology
7	distribution
8	population growth
9	species interactions, competition
10	predation
11	community ecology
12	Succession, biodiversity
13	succession, biodiversity
14	trophic levels, primary and secondary production
15	nutrient cycling

### TEST DATES:

**Test 1: September 10<sup>th</sup>: Tuesday**

**Test 2: October 10<sup>th</sup>: Thursday**

**Test 3: November 7<sup>th</sup>: Thursday**

**Test 4: December 5<sup>th</sup>: Thursday**

**Final: Wednesday, Dec 11<sup>th</sup>, 2:45 - 4:45 p.m.**

LABORATORY SCHEDULE- Due to the unpredictability of weather and living things, this list may change. I will try and remind you the Thursday before lab about whether the following week is a field lab.

Week	
1 Aug 19	No lab class
2 Aug 26	Natural selection/ Genetic Drift simulation: Outside on campus
3 Sept 2	Labor day – no class
4 Sept 9	Phenotypic Plasticity; Statistics –
5 Sept 16	data work up
6 Sept 23	Habitat utilization: Field lab
7 Sept 30	Population Density/Distribution: Field lab
8 Oct 7	Fall Break No Lab
9 Oct 14	data work up
10 Oct 21	Survivorship curves
11 Oct 28	data work up
12 Nov 4	Diversity: Field Lab
13 Nov 11	work up data; peer review
14 Nov 18	Measuring succession: Field Lab
15 Nov 25	work up data
16 Dec 2	Finish up –might be lecturing