Professor: Corey Devin Anderson, Ph.D. (Evolution, Ecology, and Population Biology)

Preferred salutation: “Dr. Anderson”

Days and time: Tuesday and Thursday, 9:30 AM to 10:45 PM.

Lab sections: D) Thurs, 12:00 to 2

Thurs

Course overview

This course is an introduction to ecological and evolutionary theory. Although ecolog

I grade on a curve, using a rank-based system; this means that you will be evaluated based on how well you perform relative to other students in the class.

If you are at or above the median score in the class you will receive no lower than a "C"; the top 0-20% of the class will receive an "A". If you fall below the median, you will receive a "C" or lower; the bottom 10 to 20% of the class will get a "D" or "F".

There a total of 800 points that can be earned in this course, 400 points from lecture exams and 400 points from laboratory exercises. There will be three midterm exams (all multiple choice format), each worth 100 points. My multiple choice tests are designed to be challenging; I expect the median score to be ≤ 65.

For math questions, I try to rig the numbers such that a calculator is not needed; however, a couple of questions may require a calculator, so . You will not be allowed to use your cell phone or borrow another student's calculator during exams.

There will also be a cumulative final (essay questions) worth 100 points. For students near the "borderline" (i.e., at or just below the cutoff for a passing "C"), your performance on this final test may influence my decision as to whether you will pass or fail. I will also consider your performance on this test if you fall near the cutoff between other letter grades (e.g., C/B and B/A).

The laboratory exercises come in various formats, but a big chunk of your score (130/400) will be based on a written scientific paper near the end of the semester. You will have another written exercise that is worth 60 points (where you will have to write a methods and results section). All of the other labs are worth 30 points each. For the 30 point labs, I will drop your lowest score and double your highest score.

Unless otherwise noted, labs are always due at the beginning of the next lab. Labs that are turned in excessively late will be penalized.

Note that laboratory exercises comprise 50% of your final grade. This means that a strong performance in lab can raise your rank considerably; conversely, a poor performance in lab can also drop your class rank. In my opinion, success in the laboratory part of this class is primarily a function of effort and attention to detail. It is the primary manner by which effort is evaluated in this course.

Required texts:

1) Population Genetics and Microevolutionary Theory by Alan R. Templeton; the publisher is Wiley.
2) Ecology and Field Biology (Sixth Edition) by Smith and Smith; the publisher is Benjamin Cummings.
3) A Primer of Ecology by Nicholas J. Gotelli; the publisher is Sinauer Associates, Inc.

Recommended text:

Any general textbook on evolution, such as:

Bergstrom CT, Evolution. Norton.
Futuyama DJ, Evolution. Sinauer Associates, Inc.
Hall BK, Evolution Principles and Processes. Jones and Barlett.
Ridley M, Evolution. Blackwell.

Unfortunately, there is only one text book in print that covers both ecology and evolution; for various reasons, we have chosen not to use this particular book. On the other hand, there are many satisfactory text books that cover ecology and evolution as separate subjects, but each text has its own strengths and weaknesses. For example, the required general textbook on ecology for this course (by Smith and Smith) does a nice job with the basic concepts and in giving illustrative examples, but is somewhat weak in terms of its treatment of the mathematics underlying the concepts. In contrast, the other required ecology text for this course (