Organismal Biology – BIOL 1108

Fall 2016

Instructor: Dr. Kathryn Dye, Division of Biological Sciences
email: through eLC course website
350 Science Learning Center
Office Hours: Monday and Wednesday 5:30-7:30pm

Aims: This course aims to cover three "big ideas" revolving around organismal biology – (1) evolution drives the unity and diversity of life, (2) biological systems interact with the environment, and within and among individuals, and (3) biological systems maintain a stable internal environment. I also aim to provide you with the framework and tools by which scientists try to make sense of the living world. Obviously we will only be able to cover a tiny proportion of what we know about organismal biology, so you should see this course not only as an introduction to the principles of biology but also as a place where you can develop lifelong analytical and critical thinking skills that will enable you to continue your learning beyond this course.

To that end, you will be learning about organismal diversity from the organizing principle of evolution. We will also be working to understand the nature of experimental design – how do we know what we know? What evidence supports our understanding? And how can we evaluate the strength of our understanding?

Intended Learning Outcomes:

A demonstrated understanding of (1) the mechanisms by which populations change over time (selection); (2) the evolutionary outcomes of selection, including the relationships among different groups of organisms; (3) how populations interact with both their abiotic (e.g. habitat and climate) and biotic (e.g. mates, competitors, predators) environment; and (4) the basics of animal form and function.

Learning Resources:

- Lecture – Monday, Wednesday and Friday, 4:40 – 5:30 pm
- eLC – Class information and additional reading will be available on-line on the BIOL 1108 website. You should check the website frequently for updates and other learning activities.
- On the eLC site you will find ***Checklists*** that will help you prepare for each unit and to consolidate your understanding. On these checklists there are deadlines. The deadlines are firm and no extensions will be granted after the fact.
- The textbook for this class is Openstax Biology. It is available in PDF format at https://openstax.org/details/biology free of charge. There is also an epub format available on iBooks for $4.99. If you prefer a print copy, they are available on Amazon for $52.00.
- We also will be using Top Hat. This means you'll need to bring some kind of smart device (smart phone, tablet, laptop) to each class. You can sign up for Top Hat at https://tophat.com/
- SimBio Interactive Biology Labs - these online tutorials will be required homeworks. The cost to you will be $5.00-$9.00 per activity. Information about how to register will be provided on eLC.

What you can expect from me:

- I will be well prepared, organized, and fair.
- I will be responsive to your questions and comments.
- I will be accessible as a guide and facilitator of your learning.

What I expect from you:

- You are here because you want to be here and will come to class *on time* and participate.
- You will collaborate with your peers on learning activities.
- You will study outside of class.
- You will read the course reading material including:
  - The course textbook, OpenStax Biology+
  - Other readings that will be provided on eLC or in class

Assessment:

The course is organized into 10 units, each covering a broad topic. Each unit will consist of readings, video lectures and in-class learning activities such as discussions or case studies. All 10 units will be assessed with a combination of readiness to learn online quizzes or homeworks, in-class coursework and exams.

Readiness-to-learn:

This semester we are taking an approach to learning that involves you preparing for each class period by some combination of reading and online video lectures. It is essential to your success in this class that you take this preparation seriously. To help motivate you to come to class ready to engage with the in-class learning activities, you will have the opportunity to earn 10% of your grade in the class through eLC online quizzes or homework assignments that assess your readiness to learn. The quizzes will cover the material in the reading and video lectures and must be completed ONE HOUR prior to the start of class.

You will not be able to drop any quizzes, so be sure to log in to eLC frequently to make sure you complete the quizzes, even for class periods you may need to miss. You will have two attempts at each quiz, although you only need to take the quiz a single time. If you do complete two attempts at a quiz, your grade will be calculated as the average of the two attempts.

All of the quiz questions will be added up at the end of the semester and you will be able to earn up to **60 points** towards your final grade. For example, say we have 300 questions all together and you get 279 of them correct. This is 93% of the readiness to learn quiz questions correct for 60*0.93 = 55.8 points out of 60.

In the News:

On most Fridays we will introduce some issue that is influencing the news that has a connection to biology. This could be anything from the outbreak of a disease to policy changes coming out of Washington, D.C. Many studies have shown that students learn better when they work in small groups of peers to discuss issues and solve problems. To that end I will assign groups of 4-5, which will be changed several times over the semester. You and your group members will be responsible for looking into this issue, finding and reading some primary literature articles that are relevant to the topic and then coming to class on the following Wednesday prepared to talk about it from the perspective of a biologist. Articles from the popular press, blogs, or other non-peer reviewed sources are useful places to start your search for information but they are not considered primary literature. A good starting point to find primary literature is found here: http://www.libs.uga.edu/science/subjectguides.html

Each group will be required to submit full references to at least two peer-reviewed papers that they used to inform them about the subject. In addition to the two references, you must list two important points that you learned from reading the articles. These two references and the two important points must be uploaded to eLC before **11 AM on Tuesday** for your group to be awarded points. Any missed or late assignments will receive no points. All members of the group will receive the same points, so it is important to work together and not rely on one person to complete the entire assignment. Material covered by "In the News" can be expected to be on the exams. Throughout the semester specific work groups will be randomly called upon to report to the rest of the class about what they found out about the topic and to share their thoughts on it. If no one from your group is prepared to discuss the topic in class when your group is randomly chosen then your group will forfeit that week's points, even if you properly submitted them before the deadline that week.

In the News assignments will be worth **60 points** for the semester. I am not exactly sure how many there will be; we will calculate your grade for the In the News assignments in the same way as the readiness to learn assignments. You will be able to drop your lowest assignment grade.

In-class learning assignments:

For each unit we will be working to develop our understanding and scientific skills, including reading and analyzing data. Some of the activities will be completed individually and some will be completed in groups. Assessment may be through Top Hat questions, worksheets or other assignments. All will be completed during class time, although I reserve the right to allow students to complete some assignments as homework if we run out of time in class. Your grade on these in-class learning assignments will sometimes be based solely on participation but some activities will also be ***graded on the basis of correctness***.

Your work on these in class assignments will be worth **120 points** for the semester. Again, I am not exactly sure of how many total assignments there will be; we will calculate your grade for the in-class assignments in the same way as the readiness to learn assignments. Because I understand that sometimes things happen that will keep you out of class, you will get all 120 points as long as you earn at least 80% of the possible points on offer during the in class activities. That way, if you miss a class or maybe just mess up an assignment, it will not adversely affect your grade.

Exams:

There are five exams for this course. Four will be given in-class during the semester. Because, as you will see, all the units build on one another, all exams are cumulative, but these first four exams will be mainly based on the more recent material. The fifth is a ***two-hour*** cumulative final exam given during the ***first two*** hours of the scheduled final exam period. You can drop your lowest exam score, **NOT** including the final exam. You must take all four exams with the lowest score being dropped, meaning you cannot skip exam 4. Each exam, including the final, is worth 90 points for a total of **360 points** from exams.

Total assessment:

Assignment	Total points	% of grade
Readiness to learn	60	10%
In the News	60	10%
In-class activities	120	20%
Exams (best 3 out of 4 + the final)	360	60%
Total Points	600	100%

Calculation of grades will be based on the percentage of points earned on the quizzes, homework and exam. I will use the following scale for determining letter grades: 100-93% A; 92-90% A-; 89-87% B+; 86-83% B; 82-80% B-; 79-77% C+: 76-73% C: 72-70% C-; 69-60% D; <60% F. However, I reserve the right to alter this scale, in your favor. Please be advised that it is rarely necessary to curve in BIOL 1108.

A few final things:

- **Class Etiquette** – please be on time for class. You may use electronic devices (e.g. phones, tablets, laptops) during class but please refrain from engaging in activities not related to class. Data show that the distraction to students can result in a loss of a full letter grade, on average. Worse, the distraction to the neighbors of those students results in a loss of ***two*** full letter grades, on average. So as a matter of respect to your fellow students, I reserve the right to ask students to leave the classroom if they are persistently ignore this class policy.

- **Communication** - To comply with the Family Educational Rights and Privacy Act (FERPA), all communication that refers to individual students must be through a secure medium (UGAMail or eLC) or in person. Instructors are not allowed to respond to messages that refer to individual students or student progress in the course through non-UGA accounts, phone calls, or other types of electronic media.

  ALL emails about this course MUST come through the eLC website. I will not answer emails that arrive in any other email account.

- **Missed Assignments -** If you miss an assignment due to illness, authorized representation of the University, or extraordinary personal circumstances, you must notify me as soon as possible. For excused absences from an exam, make-up exams generally will not be given; rather the score on a missed exam will be your drop. Unexcused absences will receive a score of zero.

  More generally, requests for extensions on any assignment due to illness, authorized representation of the University, or extraordinary personal circumstances must be requested in advance of the deadline or as soon as possible. Unexcused late submissions of assignments are not acceptable and will result in a score of zero (0) being entered for that assignment.

- **Appeals Process -** If you feel that there has been a mistake in your grade on an exam or another assignment you need to submit a **written** regrade request through eLC mail within ***one week*** of the work being returned to you. The request should be detailed and written in a professional manner. Keep in mind that regrading could potentially lead to a lower rather than a higher final grade so be quite certain before you make this request. For questions about scantron issues or to see a copy of your exam please contact Ms. Mikiesha Hill, 403A Biol. Sci. Bldg.; mikiesha@uga.edu; 542-1684.

- **Academic Honesty -** As is expected of all UGA students, I expect you to know and accept the standards contained in "A Culture of Honesty" (http://www.uga.edu/honesty/ahpd/culture_honesty.htm). Among other things, this commitment and statement means that you agree not to cheat, lie, or plagiarize. If you have questions about an assignment and academic integrity please ask me. Students who violate this policy will be reported to the Office of the Vice President for disciplinary action, and are subject to severe disciplinary penalties including the possible failure of the course and/or dismissal from the University.