

**Evolutionary Biology
Biology (BIO) 200, Section B
Fall 2017**

Meetings: Monday, Wednesday, Friday, 4:00 - 4:50 PM
Knox 20

Instructor: Dr. Jessica Poulin

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Office Hours: Monday & Wednesday 2:30 - 3:30 PM Cooke 651, and by appointment

Lecture TAs:

Nicholas Lahue
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Office Hours: Tu 3:30-4:30 PM Cooke 221

Katie Ohman
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Office Hours: Tu 11 AM – 12 PM Cooke 225

Gabriella King
Email: gsking2@buffalo.edu
Office Hours: Th 5:30-6:30 PM Cooke 221

Study skill sessions and reviews: Sun 1-3 PM Cooke 121

International TA:

Heetaek Yang
Email: heetaeky@buffalo.edu
Office Hours: Wed & Fri 5-6 PM Cooke 221

Required Materials:

1. Sadava, Heller, Orians, Purves, & Hillis (2014). *Life: The Science of Biology* (11th Edition). MA: Sinauer/Freeman Publishers. **(Required for BIO 200, 201, AND 203!!!!)**
2. *Bio 200 Evolutionary Biology Laboratory Manual* (8th Edition). Hayden McNeil Publishers. (Direct link for cheapest pricing is on UBLearn!)
3. Lab notebook (any solidly bound notebook – no spiral binding) – a composition book works well
4. Dissection kit **with scalpel**
5. Regular reference to the course site on UB Learns

Strongly Recommended Materials:

1. *Bio 200 Evolutionary Biology Lecture Guide* (8th Edition). Hayden McNeil Publishers.

All necessary materials (required and recommended) can be purchased at the university bookstore. You may purchase all materials before class begins. Lab manuals and notebooks **MUST** be purchased before Lab 2 (Week 3 of classes). The dissection kits will first be used week 6.

Goals of the Course:

This course is designed as a general introduction to organismal biology: what happens at the level of the organism and above. You will not be getting in depth discussions of biochemistry, genetics, or cell biology – that's the second semester of our intro sequence. Instead you will learn how evolution works, what organisms evolution has created, and how those organisms interact with the environment and each other. These three topics comprise the three sections of the course material: evolution, diversity, and ecology. At the end of the course, you should have a general facility with the major topics of each of these fields that should prepare you for future courses in the biology department and related fields.

The formal assessment of these goals is detailed in the "Assessment Items for Bio 200", posted under "Course Information" on UBLearn.

What you can expect from me and our course staff:

- *Respect:* We are very aware that this is not a high school classroom. You are all adults, and we will treat you as such. We do not require you to do the suggested readings and, while we give small numbers of points for attending, there are free days included. Each of you must determine the most effective way for you to gain mastery of this (and all) course material.
- *Help:* While the main function in this course is to pass on information about organismal biology, another is to help you to become the best student you can be. Make use of that role by asking questions in class, working with the lecture TAs, coming to our office hours, and using the test preparation tools I provide.
- *Communication:* We REALLY like to interact with our students and you can expect us to do so often. Since there are more than a couple of you, please expect most critical communication to occur in lecture or over email. We all love having students in office hours and the most successful students come to office hours regularly.
- *Timeliness:* I will start and end class precisely on time, because I respect the fact that you (and I) have other places to go. We will also grade your exams in as prompt a manner as possible so that you can determine how you are doing.
- *Honesty:* We will always tell you the truth to the best of our ability – even when the truth is that we don't know something.
- *Hard work:* It is our strong desire that all of you will succeed. As such, we will work extremely hard to make this an excellent course. This means that we all spend a lot of time on lecture, exam, and lab preparation.
- *Enjoyment:* I love teaching. I love students. I love biology. I love this course. Expect to see me having a lot of fun throughout this semester. The lecture TAs like this course so much they have all come back to work with you!

What we expect of YOU:

- *Respect:* This is not a class for a single student (you). We are a community. As such, please respect your fellow learners and myself. Do everything possible not to be disruptive (cell phones, chatting, etc) or distracting (crinkling snack wrappers, etc) in class.
- *Help:* We can only help you to learn if you help us to do so. By this we mean that you need to keep us apprised of how you are doing and of what you need as we move through the course. We expect you to come to us with problems EARLY in order to give us the maximum opportunity to solve them. We cannot help you with situations we don't know about.
- *Communication:* Check your UB email **daily**, if not more often. Make certain you are below quota. You are responsible for any information (including changes to the syllabus) sent via email.
- *Timeliness:* Come to class on time and **do not leave** until I have notified you that class is over. As I am committed to ending class precisely on time, there is no reason for you to pack up early. This is the most common form of student distraction (see *Respect*, above) and it will not be tolerated.
- *Honesty:* You must always tell us (myself, lab, and lecture TAs) the truth, both in person and on your assignments and exams. Academic dishonesty is grounds for course failure.
- *Hard work:* This is a difficult course. In order to succeed you must take responsibility for learning the material. This will involve hard work and dedication. I expect nothing less from any of you.
- *Enjoyment:* You're in college, so I assume you're here because you want to be. Have a good time! You're learning amazing things!

What will we cover and how to find it:

Lecture will be divided into three sections: Evolution, Diversity, and Ecology. Specific daily lecture topics ("Lecture topics and readings") and suggested readings can be found in the "Course Information" section of our UB Learns site. Please check this regularly to make sure you are up to date.

All course information will be posted in the "Course Information", "Course Documents", OR "External Links" sections of UB Learns. If you need to find something, please check **ALL** of these areas before emailing me.

How to succeed:

Before lecture:

- All lecture slides will be posted (no later than 5 PM the evening before lecture and usually before) in the "Slides" folder of the "Course Documents" section of our UB Learns site. The slide documents are pdf files with four slides per page to limit the amount of printing. I **strongly** recommend you download the slides before coming to class so that you can take notes directly on the slides. This will prevent you from having to write down everything I have on the slides. Another benefit of having the slides is that I try to provide correct spellings of difficult terms on the slides. Printing the slides does not mean you don't have to take notes – it just means you'll have more time to write the important parts down!

After lecture:

- The audio is recorded from all the lectures. These audio recordings will be posted from the main menu of our lecture UB Learns site. The recordings are often posted immediately after class, but they can take up to 48 hours to post. I am not in charge of recording so I have no control over this timing. The recordings should not imply that you don't have to come to class. Successful students come to lecture so they are engaged with the material and so they can see how the slides and audio are synchronized and then re-listen to any confusing parts of lecture or areas where they were unable to take enough notes.
- Outlines and key terms for each lecture are printed in your Lecture Guide. Use these documents to check that everything I think was important is on your radar screen. This should also be used to screen out parts I DON'T think were important! There is room in your lecture guides for questions and notes. Use this space to remember things you want to discuss in office hours with me or your TAs. These are critical study guides! Don't wait to look them over until right before the exam or you will be overwhelmed.
- Practice questions for each lecture are posted on the lecture guide website. I wrote the practice exam questions while writing actual exam questions, so they should be HIGHLY similar. Take the practice exams as soon as you have reviewed the lecture material so that you will know quickly if you are missing a concept. If you don't understand a practice problem please come to my office hours or the office hours of our TAs. Taking the practice tests under a time limit (1.6 minutes per question) is most effective. This is the BEST way to study.

In class activities:

Research shows that the best predictor of student success is engaged class attendance. To facilitate this, we will be using two strategies – attendance monitoring and think/pair/share questions on lecture content.

| Number of correct secret words | Points |
|---------------------------------------|---------------|
| 24-26 | 13 |
| 21-23 | 10 |
| 18-20 | 7 |
| 15-17 | 4 |
| > 15 | 0 |

Attendance: Before each of our lectures, I will send out a poll asking for that day's secret word. During class I will ask you to get out your phones and announce the word. You will have approximately 1 minute to select the correct word.

To prevent guessing, students submitting the wrong word will lose a full point from their total, regardless of number of correct words. If you enter the wrong word while in class, come speak to the lecture TA or myself after lecture.

Think/Pair/Share: After the secret word poll is complete, I will place a question from the material in that lecture on the screen and a new poll will open where you can answer the question. You will be allowed to work with your neighbors to determine the correct answer. Correct answers will be worth .5 pts and there will be 26 questions throughout the term.

Laboratory:

The lab portion of the course represents half of the course grade (point distribution below). Lab will meet once a week and attendance is mandatory. Your lab performance will be evaluated via quizzes, assignments, participation, and successful clean up.

Lab manual and fee: The lab fee for this course has been included in the price of the lab manual. This means that ALL students must buy a lab manual. They are available at the bookstore and must be purchased BEFORE lab 2.

Computing requirements: You must have a personal computer that meets UB computing requirements or have access to one to complete the lab. Requirements are posted on our UBLearns site.

| Lab items | Points |
|--------------------|------------|
| Hypothesis hmwk | 7 |
| Tree building hmwk | 5 |
| V-frog lab report | 10 |
| Notebook checks | 25 |
| Oral presentation | 27 |
| Quizzes* | 90 |
| Participation pts | 24 |
| Clean up pts | 12 |
| Lab exam | 60 |
| Total* | 260 |

Lab exam: A 60 point free response lab exam will be given the last day of classes (**F 12/8 4-5:50 PM, either Knox 109 or 110**). You must take this exam to pass the course.

Lab syllabus: Full descriptions of lab policies will be explained on your lab syllabus, which was written with my supervision. Issues with lab policies should be directed to your teaching assistants (lab TAs).

Lab grading: Lab assignments, expectations, and grading criteria will be fully explained in lab BEFORE each assignment is due. Lab grades will be determined, with my supervision, by your lab TAs.

* There will be 10 10-point quizzes (100 pts) during the semester. Your lowest quiz score will be dropped.

Lecture exams:

There will be two midterms (**M 10/2** and **M 11/13**) and a final (**W 12/13 7:15-8:45 PM**) in the lecture portion of this course. Midterms will be given during class time and the final will be during finals week. Please note: The final is scheduled for three hours, but we will only use the first half of the exam period for the test. There will be an in-class review the lecture before each exam.

- All lecture exams will be multiple choice.
- You will be allowed to bring a single page of notes to your exams (including your lab exam) for reference. You may use the front and back of a single 8 ½ x 11 sheet to write your notes. Your notes **MAY NOT** be typed.
- Midterms will be cumulative, with a strong focus on new material. The final exam will represent old and new material evenly.
- Lecture exams will **ONLY** cover material from lecture. Assigned reading is meant to be supplemental to help you understand lecture material. Lab material will be tested in lab quizzes and on the lab final.
- There are **no** make up exams for this course. If you know that you cannot attend on an exam day, you must drop this course and take it during another semester. If you have an unforeseen **excused** absence from an exam, you may receive an incomplete for the course and make up the missed exam the next time the course is taught.
- Exam grades, keys, and statistics will be posted in the "Exam results" folder in the "Course Information" section of our UB Learns site as quickly as possible after the exams are graded. I will email the class when I post these documents.

Grading:

There are no homework assignments in lecture. You will be graded on attendance, group questions, and exams. Additionally, there will be two anonymous course evaluations given during the course. You will receive three points for completing each evaluation and two additional points for completing both of them. I will have no way of knowing what you said on the evaluations, so please be candid.

| Lecture items | |
|------------------|------------|
| Secret words | 13 |
| Think/Pair/Share | 13 |
| Exam 1 | 62 |
| Exam 2 | 62 |
| Final | 102 |
| Evaluations | 8 |
| Total | 260 |

Grading errors: IT IS YOUR RESPONSIBILITY TO CHECK THAT THE GRADES REPORTED FOR ALL ASSIGNMENTS ARE ACCURATE. If you believe that there has been an error in grading, present the error in writing within one week of receiving the grade. Re-graded assignments may raise or lower the grade received. Please be certain of an error before you request a re-grade.

Total course grade: Grades, as reported on your transcript, will be based on the total number of points obtained in lecture and lab. You will **NOT** receive separate grades for the two components of the course. Letter grades will be assigned **AFTER** all assignments are complete. I will post exam statistics after each lecture exam so that you can see how you compare to the rest of the students in the class, but I will not assign letter grades for individual exams. If you calculate your letter grade using a straight scale (93%-100% = A, 90%-92.9% = A-, etc), you will have a close estimate of your actual letter grade. I may adjust the grade cut offs down at the end of the term.

Total grades are calculated from the totals below:

| Item | Points |
|--------------|------------|
| Lecture | 260 |
| Lab | 260 |
| Total | 520 |

Safe Space: It is critical that this classroom is a safe place that encourages learning for all students. I expect all students to be respectful of fellow learners regardless of race, ethnicity, citizenship, age, disability, gender, sexual orientation, gender identity, or religion. Any type of harassment is against UB's Discrimination and Harassment Policy and will be reported, as such. Feel free to email me or make an appointment to speak with me if you have questions or concerns about this policy or about incidents in the classroom.

Academic Dishonesty: The University at Buffalo's regulations in this area are available on our UBLeans site under External Links, listing [Academic Integrity](#). From that site: "Academic integrity is a fundamental university value. Through the honest completion of academic work, students sustain the integrity of the university while facilitating the university's imperative for the transmission of knowledge and culture based upon the generation of new and innovative ideas."

Academic dishonesty, as defined at UB, includes submitting previously submitted work, plagiarism, using unauthorized materials, the giving and receiving of unauthorized assistance during an exam or on an assignment, falsification of academic materials, misrepresentation of documents, receipt or distribution of confidential academic materials, and selling or purchasing academic assignments.

Any sort of academic dishonesty is unacceptable and can result in course failure.

Incompletes: Incompletes will only be received by students in good standing (not failing) who have an excused absence from one of the exams. These students will be given an incomplete and expected to arrange to take the missed exam when the course is next offered. Arrangements to receive an incomplete must be made before the end of the semester. Please refer to the University Policy on Grading for more information.

Accessibility Resources: Students with disabilities sometimes require reasonable accommodations to ensure their opportunity to participate fully in a class. Any student requesting such accommodation any time during the term should contact UB's Accessibility Resources Office, 60 Capen Hall, 645-2608, where they can document their mental or physical impairments and receive written verification of disability and individualized written accommodation recommendations.