

Updates made after the 1<sup>st</sup> day of class marked with green highlighting.

## Course Syllabus -- Objectives, Expectations, Policies and Procedures

Biology 201 Section 007 - Ecology and Evolution  
Spring 2018

**Time and Place:** Tuesday and Thursday 9:30-10:45am, Genome Science Building Room G200

### Instructors:

#### Dr. Mara Evans

Office: 104A Wilson  
Phone: 919-843-7107  
Email: [maral@email.unc.edu](mailto:maral@email.unc.edu)  
Office Hours: Thurs. 11:30-1:30 or by apt.

#### Dr. Christina Burch

Office: 3163 Genome Science Bldg  
Phone: 919-962-4445  
Email : [cburch@bio.unc.edu](mailto:cburch@bio.unc.edu)  
Office Hours: Weds 11:30-1:30pm

**\*\*Please register for office hours using the Sign-up feature on our Sakai website.** We are happy to meet with you by appointment outside of our scheduled hours if necessary. Please email us 2-3 days prior to when you would like to meet. Include at least 3 days and times that work with your schedule so we can coordinate a meeting.

### Teaching Assistants:

#### Jeeyun Lee

Office: GSB 2242 (within the open lab space)  
Email: [jeyn978@live.unc.edu](mailto:jeyn978@live.unc.edu)  
Office Hours: Thursdays 11am-12pm

#### Sections:

**701 Tu 3:30-4:20 Stone Center 209**  
**702 Tu 4:30-5:20 Stone Center 209**  
**703 Tu 5:30-6:20 GS 1377**  
**704 Tu 6:30-7:20 GS 1377**

#### Laura Mudge

Office: Wilson 342  
Email: [lmudge@live.unc.edu](mailto:lmudge@live.unc.edu)  
Office Hours: Tuesdays 11am-12pm

#### Sections:

**705 W 3:30-4:20 GS 1374**  
**706 W 4:30-5:20 GS 1374**  
**707 W 5:30-6:20 GS 1374**  
**708 W 6:30-7:20 GS 1377**

**Welcome to BIOL 201 - Ecology and Evolution!** With worldwide concerns like global warming, population growth, food and water security, and emerging diseases, it is particularly important for you to understand how your decisions affect the ecosystems around you. In order to make informed decisions you will need a basic understanding of the principles of evolution and ecology. Evolution is the most fundamental concept in biology; it provides the basis for understanding the origin of *all* biological phenomena. Ecology can be viewed as the theater within which the evolutionary play takes place. Evolution cannot be understood in the absence of ecology and ecology cannot be understood without evolution. Both are essential for a complete understanding of virtually all facets of biology, including how the incredible diversity of life around us originated and is maintained.

By the end of this course you will be able to do the following:

1. **Explain** the origin of species in the context of natural selection;
2. **Explain** how natural selection is one mechanism of evolution, and contrast it with other mechanisms of evolution;
3. **Explain** how the interactions between organisms and their physical environments result in changes over evolutionary time (by natural selection), leading to the organismal diversity we see today.
4. **Explain** how the interactions between organisms and their environment are related to tradeoffs, feedback, and networks at a variety of different scales

**Prerequisites:** We assume that each of you has had the equivalent of a semester course in biology wherein you learned Mendelian genetics and enough basic biology to know the major groups of organisms and the terms used for describing them. We also assume a solid background in high school algebra.

**Course Website:** <http://sakai.unc.edu>

This syllabus, the lecture outlines, guided reading questions, and other useful materials will be posted on the course website throughout the semester. *It is your responsibility to check it and your UNC email account regularly.*

**Required Textbooks:**

1. SimUText Ecology electronic textbook. Available from the SimUText website:  
<https://www.simutext.com/student/register.html#/key/UgRm-fvMw-bSxL-Ju8y-AnG8>  
Available from UNC Student Stores. See instructions for how to register under Sakai Announcements.
2. Bergstrom C.T. and Dugatkin, L.A. 2016. *Evolution*, 2<sup>nd</sup> Edition. WW Norton and Company (Editors). Available anywhere textbooks are sold (including UNC Student Stores).

**Reading:** Reading assignments are listed on the lecture schedule, and will be drawn either from the course textbooks or they will be posted on the course Sakai site. Readings should be completed *prior* to the lecture for which the reading is assigned. **Guided Reading Questions** are questions meant to assist you as you read the Bergstrom and Dugatkin textbook (these are not graded). **Sakai Reading Quizzes** are based on the assigned activities or reading for the upcoming week. These quizzes are required and graded based on correct answers. See below for more information.

**READING ASSIGNMENTS/QUIZZES (10% of your grade):** Accompanying every reading assignment will be graded questions (i.e. a quiz) that test your comprehension of the reading. Quizzes corresponding to readings for the upcoming week must be completed by 9:30AM on Tuesday, prior to class. Reading quizzes can be found on our Sakai site. Mark your calendars and leave yourself enough time to complete these assignments! Please see the lecture schedule for more details. These quizzes will be graded for correct answers. The purpose of these activities is to help you practice using your knowledge and ensure that you come to class prepared to engage more actively with the material you have read. No late assignments or quizzes will be accepted.

**CLASS PARTICIPATION (8% of your grade):** We will be using *Learning Catalytics (LC)* as our classroom response system. Registration instructions are available on the course Sakai site. If you already have an account from prior use of Pearson products there is no need to create another account. If you have never used Learning Catalytics, visit [www.learningcatalytics.com](http://www.learningcatalytics.com) to register yourself prior to class. **You must register using your official UNC email address as your login name and your UNC PID as your student ID. No exceptions!** Complete instructions for LC registration can be found on our Sakai website under Help Docs – Preparing for Biology 201 – Part 1. The file is called “Instructions to Register for Learning Catalytics.” **If you already have an LC account from a previous class you do not need to create a new account, just make sure you can log in successfully.**

We **strongly** recommend using a phone or a tablet and **not a laptop**. However, you may bring your laptop to class if you wish (*but see the Digital Etiquette section below*). Remember that when using a web browser to respond to poll questions, you need to log into your LC account first. There will be many opportunities for participation throughout the semester, and you will be given 12 “freebie points” to take into account technical difficulties or unexpected absences. These freebies are questions that you do not have to submit an answer to and you will still earn points for. As such, please do not email us about making up poll questions. Class participation questions will be graded 50% for effort, 50% for correct answer (some questions may have multiple correct answers). There will be opportunities during the semester when you can earn double participation points for a written question (aka “Double Days”). These days and questions will not be announced prior to class. You will work with your group members to complete these activities! **Note: If you miss class (for any reasons) you cannot make up your participation points, but you can use your “freebie points.”**

## GROUPS

Students learn more when they work in small groups of peers to discuss issues and solve problems. By Tuesday, January 24, you will be assigned to a group of 3 – 5 students. **If you have a seating request, please complete this form** (<https://goo.gl/KUpmrt>) **by Thursday, January 19 (e.g. you must sit in the front of the room).** In every class meeting, you will sit with your group in a designated area. We encourage you to get to know your group members because you will work with them throughout the semester. Collaborating with others is an important skill in all professions, and we are available to help you to solve interpersonal problems that may arise within your group.

If you are experiencing conflict with your group members, you may decide to invoke the “Terminator Clause.” When you work in a group, it is possible that some team members will contribute more than others. Over time, this can be a critical problem if one person demonstrates a lack of commitment to the team (e.g., failing to contribute to group assignments). In such an instance, we reserve the right to “fire” that member. Firing involves a two-step process: **First**, the team (in consultation with Dr. Burch and Dr. Evans) gives the wayward member a warning that includes the wayward teammate negotiating with the entire team about how he or she is going to be a better teammate. **Second**, if the member continues to behave inappropriately, they will be terminated from the group. Assignments from the point of termination to the end of the semester will be completed as an individual. Bad teammates usually show their tendencies early, so let a problematic group member know his or her behavior is not acceptable early.

**EXAMS (72% of your grade):** There will be 4 exams worth 18% each, one for each quarter of the class. Exams 1-3 are not cumulative, except that the advanced material at the end of the course builds on the basic material taught in the beginning. Exam questions will be taken from lectures, recitation material, and assigned readings. **Use each lesson’s learning objectives as a study guide!** Exams will consist of a variety of question types including: true-false, multiple choice, fill in the blanks, and short answer. Exam style questions will be given for practice during many lectures. Your final exam will be cumulative: 50% material from the last portion of the class, 50% material you were tested on previously.

***We will not give make-up midterm exams under ANY circumstance.*** Permission to miss a midterm examination will be granted only in extreme circumstances (e.g. severe illness), and must be obtained ***in advance*** (at least two hours before the exam starts, but the sooner you let us know, the better!). Please note that unless you are an athlete or affiliated with UNC athletics, missing an exam for a sporting event does not constitute an extreme circumstance. In the event that you obtain permission to miss one midterm examination, your overall exam grade will be based on the remaining three exams (24% each). Midterm exams that are missed without advance permission will be given a score of zero points. If you miss two exams or fail to take the final exam, you will fail the course.

**RECITATION (10% of your grade):** Ten percent of your grade will come from work done in and for your weekly recitation section. Refer to the separate recitation syllabus for details.

**GRADE CALCULATION:** Your letter grade will be based on the sum of your performances on quizzes, in-class participation, exams, and recitation according to the following scale:

A:	93-100%	C+:	76-79.9%
A-:	90-92.9%	C:	73-75.9%
B+:	86-89.9%	C-:	70-72.9%
B:	83-85.9%	D:	65-69.9%
B-:	80-82.9%	F:	<65%

**NOTE:** In order to achieve a fair grade distribution, at the end of the semester, the instructors may *adjust* grade thresholds class-wide to improve your letter grades; the thresholds will under no circumstances be

adjusted to lower your grades. There will be absolutely NO appeals regarding the final grading scale (e.g. “I earned a score of 89.9, can you round that to a 90?”).

**Grading disputes:** Scores and final course grades will be changed ONLY in the event that an exam question was mis-graded or if exam points were totaled incorrectly. If your exam points were added incorrectly, please see your TA and we will be happy to make a correction. All other requests for exam re-grading must be in the form of a WRITTEN appeal justifying why your answer should be accepted. This appeal should be attached to the **original, unaltered** exam to be re-graded and turned in to the professor (not the TA). In the event that you request a re-grade of more than one question, we reserve the right to re-grade the entire exam. All appeals for changes must be made within 10 days after the exam is returned. We will not re-grade any question or exam after the 10 days have elapsed.

**Communicating with your instructors:** You have numerous opportunities to communicate with the professors and TAs for this course. Three hours a week in lecture, one hour a week in recitation, and a variety of office hours. For questions about course content, please use these opportunities, as well as the Piazza Discussion Forum where instructors can also answer questions. Questions in class and on Piazza have the added advantage that your classmates can benefit from our answers. Please contact us via email ONLY in situations of a personal or sensitive nature. **If personal or health problems arise during the semester that hinder your ability to participate in class, please contact us as soon as possible so that we can do our best to accommodate you.** Do not wait until the last week of course to tell us as we cannot retroactively accommodate your personal circumstances.

**Peer Mentors and Supplemental Instructors:** This semester we will have two supplemental instructors and multiple peer mentors assisting our class. These are former BIOL 201 students who are volunteering their time to assist you. Supplemental Instructors will hold 1-2 hours of supplemental instructions outside of class each week (time and locations will be posted to Sakai). These sessions will host 20-40 people. Peer Mentors will host small-group study sessions (times and locations also posted to Sakai). Please make use of these wonderful people. You will see them in class each week as they will be circulating and helping you address problems in class.

**Piazza:** This semester we will be hosting class discussions on Piazza! The quicker you begin asking questions on Piazza, the quicker you will benefit from the collective knowledge of your classmates and instructors. We encourage you to ask questions when you are struggling to understand a concept—you can even do so anonymously. We, your instructors, view Piazza largely as a forum where students help each other. The teaching staff will weigh in occasionally, but only after we see solid effort to tackle a question. Rather than ask, “What is the answer to question 2?” please tell us what you think the answer is, and why you think it’s correct (or not), or tell your colleagues where you are stuck! This approach sparks conversation, which leads to learning. Also, please make sure to re-read the syllabus and lecture schedule **before** asking a logistics question! If you have any problems or feedback for the developers, email [team@piazza.com](mailto:team@piazza.com).

Find our class page at: [www.piazza.com/unc/spring2018/biol201007spring2018](http://www.piazza.com/unc/spring2018/biol201007spring2018)  
We are **BIOL 201.007 Spring 2018: Evolution and Ecology (Burch-Evans)**

### **Digital Etiquette:**

This course will require you to use a cell phone or a tablet during class time. **We do not recommend using a laptop.** However, if you do use a laptop please be respectful of your classmates and limit your screen time to course content (no shopping, YouTube, etc.). Despite what you may know about yourself, multi-tasking is actually a myth and the brain cannot perform two or more tasks simultaneously. Please be respectful of your own learning and those around you who will be distracted as you scroll through Instagram, or catch up on basketball highlights.

*If we see that you or your peers are distracted, we will ask you to put your devices away and you may forfeit your ability to earn participation points that day.* There will be times when you have completed your work or answered a poll question, but your peers have not. We ask that you assist your peers when

appropriate or use the time to review your notes while you wait. We understand that your devices connect you to your friends and family, but the classroom should be a place apart, however briefly, from the outside world and distractions. You will learn more if you concentrate on the course while you are here, and your classmates will thank you for not impeding *their* ability to learn. If you have to answer a text or a phone call, please step out of the room and return once you have completed your conversation.

**Students needing accommodations:** Please contact an instructor within the first two weeks of class if you will need special accommodations.

## **HOW TO BE SUCCESSFUL IN BIOL 201:**

**Attendance in lectures is essential for success in this course.** If you must miss a lecture, obtain a set of notes from a friend (we will also post some lecture slides on the course website). Do the reading and assignments carefully before the lecture because it will be much easier for you to understand the lectures and to participate in the discussions. After class, go back to the book and study the points we have stressed. There is more in the books than we can cover in class. You are not responsible for the subjects we do not cover. However, reading the entire chapter (indeed, the entire book) will improve your understanding of the subject. While we will only test subjects that we have covered in class or recitation, additional examples from the texts may prove very helpful on the exams!

**Take hand written notes using the lecture outlines.** ← previous students report that this is VERY important for success in BIOL 201. Also, research shows that (in general) students who take handwritten notes learn more (research paper posted to our Sakai site). Print out the lecture outlines before coming to class. The slides will be posted after class, and comparing your handwritten notes to the slides will be a great way to study. If possible, use a non-laptop device to answer your Learning Catalytics questions.

**Ask for help early and often.** Attend Supplemental Instructions sessions or visit with a Peer Mentor regularly. Visit your TA or your professor during office hours. Office hours are a great opportunity to discuss matters *unrelated* to class (e.g. your research and career interests).

**Uphold the Honor Code.** Academic honesty means that we respect each other and the work that we do; this means we behave with integrity in and out of the classroom, and do not lie, cheat or steal (e.g. plagiarism is a form of stealing). The University of North Carolina at Chapel Hill has had a student-led honor system for over 100 years. It is our responsibility to report any instances of academic dishonesty and violations of the Honor Code. The student-led Honor System is responsible for adjudicating any suspected violations of the Honor Code. *All suspected instances of academic dishonesty will be reported to the Honor System and students will receive a zero on the assignment or exam in question.* Your full participation and observance of the Honor Code is expected. Please report any violations that you observe. Information, including your responsibilities as a student is outlined in the Instrument of Student Judicial Governance (here:

<https://studentconduct.unc.edu/sites/studentconduct.unc.edu/files/documents/Instrument.pdf>).

**Academic Honesty and Learning Catalytics:** In order to earn your participations points you must be physically in the classroom and answer questions during class time. If it is determined that you are not physically present while answering poll questions you will automatically forfeit all participation points for the semester (8% of your grade) and your case will be reported to the UNC Honor Court (see Upholding the Honor Code above). We believe that honesty is important, and we know that you will learn more by being physically in class and problem solving with your classmates. If you have to miss class, remember that we give you “freebie points” to accommodate unavoidable absences.

**College can be challenging in unexpected ways.** It is possible that at some point this semester your multiple competing personal responsibilities and interests may get in the way of your academic success. It is also possible that you may get sick or have other personal emergencies. The bottom line is this: asking for help is a sign of strength and self-care! **Please ask for help early and often!** Small problems are easier

to cope with than escalated issues, or waiting until the end of the semester. While we sincerely hope that you will let us know when things are not going well, here are other campus resources you can turn to, as well:

- **Dean of Students:** If at any time during the semester you experience a personal or family illness, loss, financial stress, academic access, living issues, interpersonal violence response, alcohol or similar substance related issues, and other forces that may interfere with your well-being and success and/or academic retention please contact the Dean of Students immediately (or contact your professor and we will do so for you).  
**Website:** deanofstudents.unc.edu
- **Academic Advising:** Your academic advisers are familiar with all of the campus policies, procedures and requirements.  
**Website:** advising.unc.edu
- **Counseling and Psychological Services (CAPS):** If you are experiencing any distress please speak with a medical professional in a confidential setting. The CAPS office has daily drop in hours or you may call them for an appointment (919-966-2281) or schedule online (healthyheels.unc.edu).  
**Website:** campushealth.unc.edu/services/counseling-and-psychological-services.
- **LGBT Center:** Provides educational services, resources and advocacy.  
**Website:** lgbtq.unc.edu
- **Carolina Women's Center:** Aims to provide an equitable working and educational environment regardless of gender. Provides assistance to all individuals regardless of gender orientation.  
**Website:** womenscenter.unc.edu
- **International Student and Scholar Services:** offers services to help international students adjust to life in North Carolina and UNC.  
**Website:** iss.unc.edu

*We reserve to right to make changes to the syllabus, including the scheduled dates for exams or lecture topics and the assignment of additional readings. These changes will be announced as early as possible so that students can adjust their schedules.*