

## Spring 2018

### Biology 3144: Ecology

**Instructor:** Dr. Molly Redmond, mcredmond@uncc.edu, Woodward 390B, 704-687-5554  
**Office Hours:** Tuesdays 10:45-12 or by appointment (additional office hours before exams)  
**Course Meetings:** Tuesdays and Thursdays 9:30-10:45, Woodward 125 (3 credit hours)  
**Course Website:** <https://uncc.instructure.com/courses/64323>

**TA:** Jan Kofsky, jkofsky@uncc.edu

**Course Description:** Processes influencing the distribution and abundance of organisms, the interactions among organisms, and the interactions between organisms and the transformation and flux of energy and matter.

**Course Goals:** The goal of this course is to develop an understanding of ecological principles, including the environmental characteristics of different ecosystems, evolution and adaptation of organisms to environmental conditions, population and community dynamics, energy and nutrient cycling, and global processes.

**Textbook:** Ecology by Bowman, Hacker, and Cain, 4th Edition is recommended, but not required (the 2<sup>nd</sup> or 3<sup>rd</sup> editions are also acceptable). The textbook will be supplemented by additional reading linked in lecture notes posted on Canvas before each class.

#### Grading

- Exams 80% (five exams, the lowest score will be dropped)
- Participation 20%

Exams will be composed of multiple choice, short answer and short essay questions. Participation grade will be based on participation in clicker questions (10% of total grade) and class activities submitted through Canvas (10% of total grade). You can miss 10% of the points in each participation category with no penalty.

Grades will be posted regularly on Canvas. It is your responsibility to make sure that these are correct and notify me by email of any mistakes within one week. However, be aware that Canvas can be misleading when calculating your overall course grade. The default option in the gradebook is to ignore any assignments where you received a zero (like your clicker grade on a day you miss class). You can fix this by unchecking the box that says “calculated based only on graded assignments.” There is no way to make Canvas ignore the 10% of participation points you’re allowed to miss, so these grades may appear slightly lower than they actually are. I will post correctly calculated overall course grades to Canvas after the second and fourth exams or you can calculate them yourself:  $\text{your grade} = \text{your points} / (0.9 \times \text{total points})$

#### Canvas

Lecture notes will be posted on Canvas before each class. I will also make class announcements and post assignments on Canvas, so adjust your notification settings to make sure that you receive these promptly.

### **Clickers with Poll Everywhere**

(<https://teaching.uncc.edu/academic-technologies/student-response-system/student-guides>)

We will be using Poll Everywhere to answer clicker questions in class. You need to bring a device that can use the Poll Everywhere app or access Poll Everywhere through its webpage. Clicker questions will not be graded; as long as you try to answer the questions, you will receive credit. You are allowed to miss up to 10% of these questions with no grade penalty. If your clicker is malfunctioning, you must notify the instructor by the end of that class period.

Clickers and Academic Integrity: Any student found improperly using clickers in the classroom is violating UNC Charlotte's Code of Student Academic Integrity. These violations include, but are not limited to, using a classmate's clicker or using a clicker without being present in the classroom.

### **Other Course Policies**

**Attendance:** You are expected to attend lecture and participate in class discussions and activities. While attendance is not explicitly required, you must be in class to answer clicker questions and participate in other class activities. If you face exceptional circumstances that prevent your attendance, please contact me.

**Syllabus Changes:** The standards and requirements set forth in this syllabus may be modified at any time by the course instructor. Notice of such changes will be by announcement in class and posted on Canvas. The updated schedule of lecture topics, assignments, and reading for the coming weeks will be posted at the beginning of each day's lecture notes.

**Missed Exams:** Makeup exams are only permitted in exceptional circumstances. A missed exam will count as the lowest exam score and be dropped from your grade. If you have a final exam conflict, you are responsible for notifying the instructor at least three weeks in advance.

**Email:** You are encouraged to contact me via email. Emails will be returned within 24 business hours. Important course information may be distributed via email, so please check your UNCC email regularly.

**Electronic Devices:** Phone calls and texting are not permitted. Electronic devices should only be used for notetaking or other purposes directly related to the course activities. If your use of electronic devices is distracting to the instructor or your fellow students, you may be asked to leave.

**Copyright:** The images, artwork, videos, and text presented in class and contained within the Canvas site will be used for teaching purposes in the context of this course. Students can only use this material for learning, and cannot disseminate these images, artwork, videos, or text for any other purpose. This is in keeping with the policy on responsible use of University computing and electronic communication resources found at <http://legal.uncc.edu/policies/up-307>.

**Integrity:** Students have the responsibility to know and observe the requirements of the UNC Charlotte Code of Student Academic Integrity. This code forbids cheating, fabrication or falsification of information, multiple submissions of work, plagiarism, abuse of academic materials, and complicity in academic dishonesty: <http://legal.uncc.edu/policies/up-407>.

**Disabilities:** It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact their instructors early in the semester to discuss their individual needs for accommodations. If you have a disability that qualifies you for academic accommodations, please provide a letter of accommodation from the Office of Disability Services in the beginning of the semester and let me know what I can do to help.

**Religious accommodations:** Students will be provided reasonable accommodations for religious obligations in accordance with University Policy #409: Religious Accommodation for Students (<http://legal.uncc.edu/policies/up-409>). This policy (1) authorizes a minimum of two excused absences each academic year for religious observances as required by the faith of a student; and (2) provides students the opportunity to make up any missed work. Students are asked to submit their request for religious accommodation within the first two weeks of class.

**Diversity:** UNC Charlotte strives to create an academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity, which includes, but is not limited to, disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status

## **Tentative Course Schedule\***

### **Week 1 (1/9, 1/11)**

Introduction, The Physical Environment (Ch. 2)

### **Week 2 (1/16, 1/18)**

The Biosphere (Ch. 3), Coping with Environmental Variation (Ch. 4, 5)

### **Week 3 (1/23, 1/25)**

Coping with Environmental Variation (Ch. 4, 5), Evolution (Ch. 6)

### **Week 4 (1/30, 2/1): Exam 1 2/1**

Life History (Ch. 7), Review

### **Week 5 (2/6, 2/8)**

Behavioral Ecology (Ch. 8), Population Distribution, Growth, and Dynamics (Ch. 9, 10, 11)

### **Week 6 (2/13, 2/15)**

Population Distribution, Growth, and Dynamics (Ch. 9, 10, 11), Competition (Ch. 14)

### **Week 7 (2/20, 2/22)**

Predation and Herbivory (Ch. 12), Parasitism (Ch. 13), Mutualism and Commensalism (Ch. 15)

### **Week 8 (2/27, 3/1): Exam 2 3/1**

Nature of Communities (Ch. 16), Review

### **Spring Break (3/5-3/10)**

### **Week 9 (3/13, 3/15)**

Nature of Communities (Ch. 16), Changes in Communities (Ch. 17)

### **Week 10 (3/20, 3/22)**

Biogeography (Ch. 18), Species Diversity (Ch. 19)

### **Week 11 (3/27, 3/29)**

Production (Ch. 20), Energy and Food Webs (Ch. 21)

### **Week 12 (4/3, 4/5): Exam 3 4/5**

Nutrient Supply and Cycling (Ch. 22), Review

### **Week 13 (4/10, 4/12)**

Global Ecology (Ch. 25), Conservation Biology (Ch. 23)

### **Week 14 (4/17, 4/19)**

Microbial Ecology, Ecology of Infectious Disease

### **Week 15 (4/24, 4/26): Exam 4 4/26**

Catch Up and Review

### **Week 16 (5/1)**

Review and Synthesis

### **Final: May 10, 8-10:30**

**\*Exam dates will not change, unless the University closes for weather or other reasons. In that case, the exam will be moved to the next class period**