

BIOE 107: ECOLOGY
SUMMER SESSION 2014

Time: Tues / Thurs 9:00-12:30pm **Location:** Physical Sciences 110

Course Website: <https://ecommons.ucsc.edu>

INSTRUCTOR: Dr. Nicole M. Thometz email: nthometz@ucsc.edu Office: LML - COH251
Office Hours: Tues / Thurs 12:45-1:45pm Thimann 389 & by appointment at LML

Teaching Assistant: Gina Contolini email: gcontoli@ucsc.edu Office: LML – Trailer 7, room 101A
Office Hours: Wed 3-5pm at LML & by appointment

COURSE GOALS

The goal of this course is to introduce students to important concepts in ecology. Basic principles will be presented through an analysis of concepts which span different levels of biological organization from individuals and populations to communities and ecosystems. Concepts will be presented through a collection of case studies, experimental approaches, mathematical models, and applications to important ecological issues. Throughout the course students will gain an appreciation for the vast diversity and complexity existing in natural ecosystems spanning various biogeographic regions across the globe.

REQUIRED TEXTBOOKS

Ecology (2008) by M.L. Cain, W.D. Bowman, & S.D. Hacker. This text serves as a general reference that describes ecological concepts in evolutionary ecology, physiological ecology, population ecology, species interactions, biogeography, and conservation. You should read it to help clarify concepts presented in class.

A Primer of Ecology (2008) 4th Edition by N.J. Gotelli. This is a thin but concise paperback that is a must read for anyone interested in pursuing biology as a profession. *It is excellent at walking students through the equations that will be presented in class.*

OFFICE HOURS

If you need to meet myself or Gina outside of our regular office hours you will need to make the trip down to LML to meet with us by appointment. Students are enthusiastically encouraged to attend office hours. **NO ELECTRONIC OFFICE HOURS:** we will not answer study questions via email - asking questions and explaining complex material by email can lead to confusion, so come talk to us in person.

**Syllabus is tentative and subject to change

LECTURE SCHEDULE & READINGS

(CA = Cain et. al. / GOT = Gotelli)

DATE:	Topic:	Assigned Reading:	Assignments:
TUE June 24 th -	1. Introduction 2. Physical Environment 3. Evolutionary Ecology	CA Ch. 2 & 3 CA Ch. 6	Paper Assigned
THURS June 26 th -	4. Body Size & Allometry 5. Physiological Ecology 6. Behavioral Ecology <i>*Special guest presentation (Caroline Casey)</i>	CA Ch. 4 & 5 (p.119-131)	
TUES July 1 st -	Population Ecology- 7. Distribution & Dispersal 8. Exponential Population Growth	CA Ch. 8 CA Ch. 9.3; GOT Ch. 1	HW 1 Assigned *bring computer*
THURS July 3 rd -	Population Ecology - 9. Logistic Population Growth & Density Dependence 10. Life History Evolution <i>*Redwood field trip on campus (11:30am-1pm)</i>	CA Ch. 9.4-9.5, 10.1-10.2 GOT Ch. 2 CA Ch. 7	HW 1 DUE (9 am) HW 2 Assigned → wear appropriate clothes
FRI July 4 th -	No Class		Paper DUE by 10pm
SUN July 6 th -	No Class		HW 2 DUE by 10pm

TUES July 8th -	MIDTERM	MIDTERM EXAM
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THURS July 10 th -	Population Ecology- 11. Population Structure & Life Tables 12. Metapopulations & Extinctions	CA Ch. 9.1-9.2; GOT Ch. 3 CA Ch. 10.3-10.4; GOT Ch. 4	HW 3 Assigned *bring computer*
TUES July 15 th -	13. Competition 14. Predation & Herbivory 15. Mutualisms	CA Ch. 11; GOT Ch. 5 CA Ch. 12; GOT Ch. 6 CA Ch. 14	HW 3 DUE (9 am) HW 4 Assigned
THURS July 17 th -	16. Communities & Succession 17. Community Structure & Food Webs <i>*Special guest presentation (Brent Hughes)</i>	CA Ch. 15 & 16; GOT Ch. 8 CA Ch. 20	HW 4 DUE FRI 7/18 by 10pm
TUES July 22 nd -	18. Biogeography & Species Diversity 19. Conservation & Management <i>*Special guest presentation</i>	CA Ch. 17 & 18; GOT Ch. 7 CA Ch. 22 & 23	Paper Revision DUE by 9am

THURS July 24th -	FINAL EXAM	FINAL EXAM
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GRADING

<u>Assignment</u>	<u>% of Final Grade</u>
Homework Assignments	10
Midterm	40
Final	50
Paper & Revision	Pass/No Pass

EXAM POLICIES

Summer session is very face-paced. Therefore, no exams will be given prior to the specified dates and **no makeup exams will be given**, except in case of serious accident, illness, or death in the family. In such cases **verification will be required**, and I must be notified within 24 hours of the exam.

Midterm: the midterm will cover material introduced in the first half of the course.

Final Exam: the final exam will cover all material introduced in class but an emphasis will be on material covered during the second half of the course.

*NOTE: **There will NOT be review sessions prior to exams.** Summer session is very fast paced for everyone. Homework assignments and in-class worksheets are provided to prepare students for the exams. Work on homework assignments as you get them to and come to office hours (or make an appointment to meet with me or Gina) if you have any questions or need assistance.

GRADING POLICIES

NO REGRADES!! I take great care to grade all assignments and exams consistently and fairly, and as such **I do not re-grade exams unless there is an error in the points tally.** In other words: I will not re-grade your exam or assignment because you do not like your grade. Please see me BEFORE the end of the course if you are concerned about your grade. The points you get are the points YOU EARN through demonstration of an understanding of the course material. I cannot give you more points because you do not like your grade. I will not test you on anything I do not cover in class.

DICIPLINARY COMMUNICATION REQUIREMENT

This course partially fulfills a **DC** (disciplinary communication) requirement in the EEB department. As such, it is considered a writing intensive course where you will be required to write at least 12 (double spaced) pages. These 12 pages of writing will be completed by writing a 6 page paper with a rigorous revision and re-submission. The paper will be turned in online (ecommons) by 10pm on July 4th for review and given back to you with edits, comments, and suggestions for revisions. You will then revise your paper based on the comments received and turn in a final version online (ecommons) by 9am on July 22nd. This will complete the 12 page writing requirement for this course which has been dictated by the department. **If you do not pass the writing requirement, you will not be able to receive a grade (or credit) for this course until you complete a designated writing course at UCSC.**

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DRC STUDENTS

Please be sure to introduce yourselves to me (after or before class) in the first week of class and let me know how I may facilitate your learning experience. Furthermore, please bring your DRC forms so I can make arrangements for the midterm and final well ahead of schedule.

Students with disabilities who may need accommodations please see me as soon as possible during office hours or make an appointment to see me by email.

ACADEMIC INTEGRITY

Plagiarism is a very serious form of cheating and cheaters will receive a grade of zero for the assignment or exam, and may receive a grade of zero for the course. Plagiarism occurs when one uses the exact words or work of others without giving credit, or copies writing from the literature verbatim or near verbatim and submits it as their own (it is also wrong to copy almost directly from an article where only the sentence order or word order has been rearranged -- you must write in your own words!)

Cheating also includes (but is not restricted to): copying from a classmate's exam with or without their consent, allowing another student to copy from your exam, turning in work that is not yours, and completing work for another student. All cases of cheating will be discussed with the student and then reported to the university for possible additional disciplinary action, according to the university's Policy on Academic Integrity: http://www.ucsc.edu/academics/academic_integrity/undergraduate_students/