

**Instructors:**

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**Course Description:** This course is an introduction to ecology, the study of organisms' interactions with each other and with their environment. We will focus on understanding 1) the mechanisms that generate patterns of species' distributions and abundance and 2) the forces that drive physiological, morphological, and behavioral strategies for responding to the environment. These phenomena will be studied in the context of the evolutionary processes that produce them. Beyond learning fundamental ecological principles, students will learn to formulate and test ecological hypotheses, to conduct basic ecological observations and experiments, and to interpret and evaluate ecological data.

**Course Website:** The D2L website is the official website for the course and will contain all assignments, important information, and grades. To access this course on D2L you must have a UA NetID and be officially enrolled in the course for at least 24 hours.

Instructions for accessing the course website:

1. Go to <http://d2l.arizona.edu> (Note: NO www)
2. Click on the "Check that your browser is compatible" hyperlink (Step 2).
3. Click on the UA NetID Login button on the top left side of the screen.
4. Enter your NetID and password-- the same as you use to get into your UA Webmail.
5. Once you are inside  
Click on the (+) symbol beside the Semester and Department names  
Then click on ECOL 302: Ecology
6. On the Course Home page, take a look at blue and red navigational bars.  
Click Content to get to the Syllabus, Readings, etc. for your course.
7. Help is available at <http://help.d2l.arizona.edu>

**Required text:**ML Cain, WD Bowman, SD Hacker (2011) Ecology, 2<sup>nd</sup> Edition. Sinauer Associates

**Recommended text:** NJ Gotelli (2008) A Primer of Ecology, 4th Edition. Sinauer Associates  
Required chapters will be available on D2L, but the entire text (ANY edition) is recommended.

**Lecture availability:** Lectures *WILL NOT* be available for download or as handouts. You are expected to take notes in class. If you must miss a class, then you will need to obtain notes from a classmate, and are strongly encouraged to come to office hours to review the material with a TA and/or instructor. Exams will be focused primarily on material discussed in lecture.

**Course Structure and Grading:** Grading will be determined by points for the following course components:

<u>Component:</u>	<u>Grade%</u>	<u>Points</u>
Best 3 of 4 Exams	60% (20% each)	600 (200 each)
In-class Quizzes	15%	150 (10 pts / week)
<u>Lab section</u>	<u>25%</u>	<u>250 (min 150 lab grade required to pass course)</u>
TOTAL	100%	1000

**Quizzes:** There will be weekly, in-class quizzes (conducted either Tues or Thurs, at any time during class). Quizzes will be open-note (not open-book), and may cover any topic – including content covered that day, or older material. There will be 16 quizzes, and the top 15 grades will count toward the final grade.

**Exams:** There are three in-term exams and one final exam in this course. Exams may include multiple choice, identification, data/graph analysis, problem solving, short answer, and/or long answer questions. Exams will cover material from lectures, readings, labs, movie clips, and guest lectures. Your best three out of the four exams will count toward your final grade.

**Re-grade requests:** Requests must be submitted in writing within one week of receiving your graded work.

**Absence policies:** Students are expected to attend every class and lab session. Attendance will not be taken during lecture, but see comments above about Lecture Availability and Quizzes. Attendance will be taken during labs, and more than 3 absences from the lab will result in failure of the course. All holidays or special events observed by organized religions will be honored, as will absences pre-approved by the UA Dean of Students (or Dean's designee).

**Honors credit:** For Honors College students who would like to take the course for Honors credit, an Honors Contract is possible. Please see <http://www.honors.arizona.edu/future-students/honors-credit-across-campus> for details, and request a meeting with an instructor to discuss a contract.

**Policies against Plagiarism and Cheating** within Student Code of Academic Integrity can be found here: <http://deanofstudents.arizona.edu/codeofacademicintegrity>. **All students are expected to submit work that is entirely their own. All cases of cheating and plagiarism will be reported and will result in a failing grade for this course.**

**Policy on Expected Classroom Behavior:** Students in the course are expected to participate to the best of their abilities in each class session. *No electronic communication devices should be used during the class session.*

**Policies against Threatening Behavior** by students can be found here:

<http://deanofstudents.arizona.edu/policiesandcodes/studentcodeofconduct>. All students are expected to treat one another and the instructor with respect at all times.

**Students with Disabilities:** If you anticipate barriers related to the format or requirements of this course, please meet with an instructor so that we can discuss ways to ensure your full participation in the course. If you determine that disability-related accommodations are necessary, please register with Disability Resources (621-3268; [drc.arizona.edu](http://drc.arizona.edu)) and notify an instructor of your eligibility for reasonable accommodations. We can then plan how best to coordinate your accommodations.

**Notice:** *The information contained in the course syllabus, other than the grade and absence policies, may be subject to change with reasonable advance notice, as deemed appropriate by the instructor. Changes will be announced in class. Failure to attend class does not absolve you from adhering to changes in dates and assignments.*

## ECOL 302 Lecture Schedule, Fall 2013

Date	Topic	Reading	By
Aug 27	Intro: Ecology, Evolution/Adaptation, KD & JB research	CH 1&6	JB/KD
Aug 29	Biomes & Life History Variation: Constant environments	CH 3&7	KD
Sep 3	Life History Variation: Variable environments	CH 3&7	KD
Sep 5	Measuring abundance, exponential growth	CH 9a, G 1	KD
Sep 10	Density dependence, carrying capacity, logistic growth	CH 9b, G 2	KD
Sep 12	Special Topics I: History of Ecology		JB
Sep 17	Exam I	–	–
Sep 19	Age- and stage- structured populations	G 3	KD
Sep 24	Stochasticity, extinction, meta-populations	CH 10, G 4	KD
Sep 26	Optimal harvesting	reading	KD
Oct 1	Distribution of species, rarity, range limits	CH 8	KD
Oct 3	Dispersal & migration	reading	KD
Oct 8	Habitat conservation design	CH 23	KD
Oct 10	Global change: Species invasions	CH 22	KD
Oct 15	Global change: Range shifts	CH 24	KD
Oct 17	Intro to interspecific interactions and coevolution	reading	JB
Oct 22	Special Topics II: Methods in Ecology		KD
Oct 24	Exam II	–	–
Oct 29	Competition 1	CH 11	JB
Oct 31	Competition 2	CH 11	JB
Nov 5	Predation 1	CH 12	JB
Nov 7	Predation 2	CH 12	JB
Nov 12	Disease ecology	CH 13	JB
Nov 14	Mutualism	CH14, reading	JB
Nov 19	Special Topics III: The Microbiome		JB
Nov 21	Exam III	–	–
Nov 26	Communities 1	CH 15, 18	JB
Nov 28	Thanksgiving	–	–
Dec 3	Communities 2: Patterns in space	CH 16, 17	JB
Dec 5	Communities 3: Patterns in time	CH 16, 17	JB
Dec 10	Ecosystems		Guest
Dec 17	Final: Exam IV	–	–

CH = Chapter(s) in required text Cain et al. Ecology

G = Chapter in Gotelli on D2L

reading = paper(s) assigned on D2L