

# Principles of Ecology Fall 2015

PCB 3044-0002 – 3 credit hours

Monday, Wednesday, Friday 1:30 – 2:20 pm  
Health and Public Affairs 1 (HPA1), Room 0119

**Instructor: Dr. Lisa Chambers**

Rm 439, Biological Sciences Bldg. (BIO)

Email: [lisa.chambers@ucf.edu](mailto:lisa.chambers@ucf.edu)\* (\*Please see email policy- *all questions regarding the class should be sent to [EcoTA@ucf.edu](mailto:EcoTA@ucf.edu)*).

Office Hours: MW 2:30-3:30 pm, or by appointment

**Undergraduate Teaching Assistant: Lindsay Arick**

Rm 201, Biological Sciences Bldg. (BIO)

Email: [EcoTA@ucf.edu](mailto:EcoTA@ucf.edu)

Office Hours: TR 12:00-1:00pm, or by appointment

**Weekly Review Sessions:** M 4:00-5:00 pm and W 10:00-11:00 am, in BIO 104

**Email Policies:**

- ALL questions regarding the class should be sent to the TA at [EcoTA@ucf.edu](mailto:EcoTA@ucf.edu).
- If the TA cannot answer the question, it will be *forwarded by the TA* to the instructor.
- Include in your email subject: course title (i.e., Ecology) and section number (0002)
- Include in your email: (1) your full name, (2) course title (i.e., Ecology) and (3) section number (0002)
- The TA will try to respond within 48 hours, but some response times may be longer. Please plan accordingly by not waiting to the last minute to contact us with questions or concerns.
- Due to confidentiality, grades must be discussed in person with the instructor and not via email.
- We will only be able to send e-mail communications to your Knight's E-mail addresses.

**Course Website:** Webcourses PCB3044-15Fall 0002

**Course Description:** This 3 credit hour course will examine the structure and function of ecological systems, including populations, communities, and ecosystems. Students are expected: to master major concepts and basic terminology of ecology, understand how evolution and ecology complement each other, and understand approaches of ecological study, including theory, observations, and experiments. This course is designed for an audience of Biological Science majors & minors, Environmental Science majors, Science Education majors and Pre-professional students.

**Course Goals:**

1. Understand the basic principles of ecology as a cornerstone of a broad background in biology.
2. Learn some of the basic ecological terminology.
3. Appreciate and apply the theoretical concepts of ecology and the experimental evidence supporting them.
4. Become familiar with the scientific method as applied to ecological studies.
5. Gain an appreciation of ecology as a science and its role in understanding the man-nature interaction.

**Course Prerequisites:** C or better in Biology II (BSC 2011C) and Chemistry Fundamentals 1 (CHM 2045C).

**Required Text and Resources:**

**Textbook:** Cain, Bowman, and Hacker. 2013. Ecology, **3rd ed.** Sinauer Associates, Sunderland, MA. Available at book store; digital version is also available at <http://ebooks.sinauer.com>.

**i>Clicker2:** Available at book store. You must use version 2.

**Webcourses:** Ecology is a web-enhanced class. Announcements, lecture notes, quizzes, grades, study tips, and relevant web links will be made available at this site. Use your NID and myUCF password to log in. Before emailing us, please check this site for information first!

**Performance Evaluation:**

Exams (4 total, 22% each)	88%
Web quizzes (avg. of 10 best)	6%
Clicker participation	6%
Total = 100%	

**Grading Scale:**

A 94-100%	B- 80-83%	D+ 67-69%
A- 90-93%	C+ 77-79%	D 64-66%
B+ 87-89%	C 74-76%	D- 60-63%
B 84-86%	C- 70-73%	F <60%

**Grading and Evaluation:**

Students will be graded and evaluated based on exam scores, web quizzes (average of 10 best), and clicker participation. You can access your scores at any time using the **Grade Book function of Webcourses**. The overall semester grade will not be rounded. Either you have the grade or you don't. In other words, a 79.9999 is still a 'C+'. There will be no exceptions to this policy and no adjustments will be made to final grades.

**Readings:** You will be responsible for both lecture material and assigned readings in the text. This class will closely follow the required text. To succeed, students must read and understand materials presented in the textbook. Relevant chapters are included on the class schedule and readings need to be completed **prior to class**.

**Lectures:** Lectures are designed to benefit you by highlighting important concepts and providing additional explanation of complex topics. Students are expected to demonstrate the utmost respect for the instructor and their fellow students during class. Proper class etiquette includes: not arriving late or leaving early; turning all cell phones OFF when entering the classroom; not disrupting class by talking, texting, or using your computer for purposes unrelated to the lecture. People not adhering to these common courtesies will be asked to leave the class.

**Exams:** There will be four exams (22% each). The final exam (exam 4) is NOT comprehensive and will cover the material since the previous exam. The schedule for exams is listed in the class schedule. The questions will be predominately multiple choice and all questions will pertain to material covered in lectures and textbook readings.

**Exam Policies:**

1. **All exam grades count towards your semester grade. No exam grades will be dropped.**
2. All exams will be based on both lecture material and text reading assignments.
3. You must bring:
  - a) A pencil
  - b) Your UCF ID – **note:** failure to show your ID may result in a score of zero for the exam.
4. If a calculator is needed it must be a nongraphing, nonprogrammable type of calculator capable of performing the type of calculations discussed in the text and lecture (e.g. Texas Instruments TI-30 or Casio fx-300MS). You may not use a cell phone.
5. Scantrons will be supplied. You do not need to bring your own.
6. Exams 1-3 will begin promptly at the beginning of class and each requires the full 50 minutes. The final exam will occur at the scheduled time during finals week (see class schedule). It is not comprehensive and will only include the material covered since exam 3.
7. **You must attend the exam for your correct section.** This includes in-class exams and the final exam. There will be no exceptions to this policy.
8. **Do not arrive late.** A late student will be allowed access to the exam only at the discretion of the instructor/proctors. Under no circumstances will extra time be allowed.
9. Prior to the exam, all books, notes and bags must be stowed under your seat.
10. Cell phones must be turned OFF and stowed during the exam period.
11. You will NOT be allowed to leave the exam. Make sure you have everything you need (pencil, ID, tissues, etc.) and use the restroom before the exam starts.
12. You must print your **PID number** on the scantron and question sheet. Be sure you know it!

13. Grades will be posted on WebCourses and we will inform the class when they are posted.
14. **REVIEW OF EXAMS** - Scantrons will not be returned to students. Instead, you may review your exam during TA office hours or by appointment by emails EcoTA@ucf.edu. Each exam must be reviewed prior to the next exam date (i.e. if you would like to review exam 1 this must be done before exam 2 is given).

**Missed Exam Policy:**

1. Make-up exams for exams 1, 2, and 3 will be provided **only** for students who must miss the exam due to official University business at which your presence was required (e.g. a university-sponsored team event). **Hard-copy documentation must be provided 48 hours in advance from the appropriate university body.**
2. For all other cases (e.g. illness, unforeseen emergencies, etc.) you must contact the professor promptly (within 24 hours or less) after missing the exam and provide **hard-copy documentation (a signed document from a doctor, police officer, judge etc. - not by e-mail) within one week.** The absence must have been caused by a valid emergency as defined by UCF and/or the professor, including but not limited to: major illness, serious family emergency, jury duty, military obligation, etc.
3. Make up exams will be in essay format.
4. Unexcused absence from an exam will result in a failing grade for the missed exam.
5. All students are required to take the final exam and there will be **no make-up exams for the Final.**

**Quizzes:** There will be 11 multiple choice quizzes to be accessed and completed **on WebCourses**. Quizzes will be available on Webcourses by 5:00pm the Thursday before they are due. All quizzes are due by **11:59 pm Friday** every week except exam weeks (see class schedule below). You will have 30 minutes to complete each quiz. Quizzes are open book but require prior preparation to successfully complete the quiz in the time allotted. If you are not satisfied with your grade on a quiz it may be taken a second time prior to the due date and the best score of the two will count. As questions are drawn randomly, so the two quizzes are unlikely to contain the same questions. The lowest quiz grade will be dropped and your quiz average will be determined using your 10 best quiz scores. **There are no make-up quizzes and no deadline extensions**, you are responsible for remembering to complete the on-line quizzes on time. You are responsible for reading the text and taking the quizzes on time. The first quiz will occur at the end of week 1.

Two common problems with quiz submission you should note are:

1. Questions must be **answered in order** and you may not return to previous questions;
2. Final submission of the quiz must occur prior to the **30 minute** deadline or the computer will not accept it.

### Clickers:

You will need to bring your i>Clicker2 to lecture each day. Clickers will be used for in-class quizzes, opinion polls, on-the-fly knowledge assessments, and of course attendance. You must use the i>Clicker 2 (with the LCD screen). You may **not** use the i>Clicker1 or i>Clicker Go on your phone, laptop, or tablet. You can purchase or rent this from the UCF bookstore.



**The required use of clickers will begin on Wednesday 9/2.** You must have registered your i>Clicker2 by this day or you will not receive credit. It is however advisable that you register it immediately so you can try it out in class before it counts. That way you can learn how to use it and fix any problems prior to it affecting your grade.

### How to register your iclicker2:

1. The only valid way to register your i>Clicker2 for this class is through Webcourses. Even if you registered your i>Clicker2 in a previous semester you must reregister it this semester.
2. Log into the class web page
3. On the left-hand side menu click the tab named "i>clicker".
4. Click on the "i>clicker Registration" link.
5. Follow the instructions provided.

Most days in class, the professor will ask one or more questions for you to answer using your i>Clicker2. Answering these questions is necessary to receive: (A) Participation credit; (B) Extra credit.

### (A) Clicker Participation:

Clickers will be used to assess your overall attendance and participation. Your final participation grade is worth 6% of your overall grade. The responses do not need to be correct for you to receive credit for participation but ALL questions asked that day must be answered. So, if you arrive late or leave early and a quiz question is asked to which you were unable to respond due to your absence, then you will not receive participation credit for that day even if you answered a question in the middle of class.

- **\*\*\*NOTE\*\*\* You may miss class two times and still receive full participation.** So if your batteries run low (bring extras just in case), you forget your clicker, you overslept, your car did not start, etc., *there is no need to contact the instructor*. More than two missed participation days will however result in a grade reduction unless these absences are for authorized exceptional reasons including illness, court, military duty, or official university business. Written documentation from a competent authority (physician, coach, counselor, etc.) for such absences should be presented to the professor.
- *Your final participation grade will be calculated as follows:*

(# of days you participated) / (total # of days clickers were used - 2). So, if there were 35 clicking days then with the two allowed absences we would count it as 33 clicking days. If you participated in 25 days then your participation grade will be  $25/(35-2) = 0.758$  (75.8%).

(B) Clicker Extra Credit:

It is not necessary to respond correctly to clicker questions to receive participation credit for a particular day, but correct responses will benefit your grade via extra credit added to your overall exam average. The maximum possible extra credit is 2%. Extra credit points missed for any reason cannot be made up under any circumstance.

- *Calculating your extra credit grade:* There are 4 exams, each worth 100 pts, for a maximum of 400 points possible without extra credit. The maximum possible clicker extra credit is 2% which is 8 points ( $400 * 0.02 = 8$ ). To calculate your points, multiply your clicker average by 8. For example, if you correctly answered 91% of the questions asked, you will receive  $0.91 * 8 = 7.28$  extra credit points added to your overall exam average.
- **\*\*\*NOTE\*\*\* Clicker responses will only count when done within your assigned section. You will not receive any points for participation or extra credit if you attend a course section in which you are not enrolled.**
- **Clicker responses must be done on your own, unless otherwise indicated by the instructor. Discussing answers with a neighbor prior to clicking is considered cheating and will be dealt with as such (see Academic Conduct section below).**
- **Bringing a fellow student's clicker to class is cheating and will be dealt with as such.**

**Extra Credit:** There is only one way to earn extra credit in this course and that is by correct i>Clicker2 responses. This results in a maximum possible of 2% added to your overall exam average (see "Clickers" section for details). No other forms of extra credit will be accepted under any circumstance.

**Class Schedule (subject to revision):**

The dates and assignments/subjects/readings in this schedule are tentative, and can be changed at the discretion of the professor.

**Class schedule (tentative):**

Week	Dates	Topic	Relevant Chapters	Quiz Due (11:59pm)
1	Aug- 24, 26, 28	The web of life; The physical environment	1-2	Aug 28
2	Aug- 31, Sep- 2, 4	The physical environment; The biosphere	2-3	Sept 4
3	Sep-9, 11	No Class 9/7; Coping with environmental variation (temperature, water, energy)	4-5	Sept 11
4	Sep- 14, 16, 18	<b>Exam 1 (Monday Sept. 14)</b> Evolution and ecology	6	
5	Sep- 21, 23, 25	Life history; Behavioral ecology	7-8	Sept 25
6	Sep- 28, 30, Oct- 2	Population distribution and abundance; Population growth and regulation	9-10	Oct 2
7	Oct- 5, 7, 9	Population dynamics; Competition	11-12	Oct 9
8	Oct- 12, 14, 16	<b>Exam 2 (Monday Oct 12)</b> Predation and herbivory;	13	
9	Oct- 19, 21, 23	Parasitism; mutualism and commensalism	14-15	Oct 23
10	Oct- 26, 28, 30	Nature of communities; Change in communities	16-17	Oct 30
11	Nov- 2, 4, 6	Biogeography; Species diversity in communities	18-19	Nov 6
12	Nov- 9, 13	<b>Exam 3 (Monday Nov 9);</b> No Class 11/11; Production	20	
13	Nov- 16, 18, 20	Production; Energy flow and food webs	20-21	Nov 20
14	Nov- 23, 25	Nutrient supply and cycling; No Class 11/27;	22	
15	Nov- 30, Dec- 2, 4	Conservation biology; Landscape ecology and ecosystem management	23-24	Dec 4
16	Dec- 7	Global ecology	25	
<b>Final</b>	<b>Dec- 14</b>	<b>1:00-3:50</b>		

**Academic Conduct:**

Students are expected to follow UCF's standards for personal and academic conduct as defined and outlined in the Golden Rule (see: <http://goldenrule.sdes.ucf.edu>). Academic dishonesty in any form will not be tolerated. If you are uncertain as to what constitutes academic dishonesty, please consult The Golden Rule, the University of Central Florida's Student Handbook (<http://www.goldenrule.sdes.ucf.edu/>) for further details. As in all University courses, The Golden Rule Rules of Conduct will be applied. Violations of these rules will result in a record of the infraction being placed in your file and receiving a zero on the work in question AT A MINIMUM. At the instructor's discretion, you may also receive a failing grade for the course. Confirmation of such incidents can also result in expulsion from the University.

**Make-up assignments/exams will be determined on a case-by-case basis and in advance of any deadline.** If you must miss an assignment, exam, discussion, etc. and you have a valid reason for doing so, you **must inform the instructor by email PRIOR to the missed class/activity or ASAP.** If you must miss for medical/health reasons, you must provide a doctor's note. Students are expected to notify the instructor in advance (at the beginning of the semester) if they intend to miss class to observe a holy day of their religious faith.

The current UCF policy concerning **incomplete grades** will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. Your instructor is the final authority on whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will automatically be recorded as an "F" on your transcript.

As of Fall 2014, all faculty members are required to document students' academic activity at the beginning of each course. In order to document that you began this course, we will document attendance during at least the first couple weeks of class. Failure to attend class will result in a delay in the disbursement of your financial aid and incur the wrath of the administrative bean counters.

**Disability Access:**

The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students who need accommodations must be registered with Student Disability Services, Ferrell Commons Room 185, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.