

PCB 3044 - Principles of Ecology - Spring 2015

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Office Hours: Mondays, Wednesdays, and Fridays 10:30 – 11:30 am, or by appointment.

Instructor: Dr. John Weishampel (pronounced "Why - sample?")
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Undergraduate Teaching Assistant: **Lindsay Arick**
Office: Room 201, Biological Sciences
e-mail: EcoTA@ucf.edu
Office Hours: Mondays 2-3 pm, Wednesdays 11 am-12 pm, or by appointment

Email Policies:

- * **ALL questions regarding the class, should be sent to the TA at EcoTA@ucf.edu.**
If the TA cannot answer the question, it will be forwarded by the TA to the instructor.
- * Please include your (1) 1st and last name, (2) course title (Ecology) and (3) section number
The TA will try to respond within 48 hours however, response time may be greater. 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.
- * Knight's E-Mail - We will only be able to send e-mail communications to Knight's E-mail addresses.

Class Meeting Times: Section 1: Mondays, Wednesdays, and Fridays, 9:30-10:20 am, HPA 112
Section 2: Mondays, Wednesdays, and Fridays, 12:30 - 1:20 am, BA 119

Intended Audience: Biological Science majors & minors, Environmental Science majors, Science Education majors and Preprofessional students

Course Description: This 3 credit course will examine the structure and function of ecological systems, including populations, communities, and ecosystems. Objectives for students include: (a) master major concepts and basic terminology of ecology, (b) understand how evolution and ecology complement each other, and (c) understand approaches of ecological study, including theory, observations, and experiments.

General Objectives Students are Expected to Achieve:

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 Resources:

Text: Cain, Bowman, and Hacker. 2013. Ecology, **3rd ed.** Sinauer Associates, Sunderland, MA.
Available at Book Store. If you prefer, a digital version is 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 frequently asked questions!

Study Sessions:

To help you succeed in this fast paced class, your TA will be holding study sessions twice weekly. It is highly suggested that you attend these sessions as often as possible.

When: Mondays 3:30-4:30
Thursdays 5:30-6:30.

Where: BIO 206

Readings:

Readings, for the most part, are designed to coincide with and supplement the lecture component of the course. The order of reading assignments which generally follow the book chapter order is listed in the schedule on the last page. It will help you to succeed if you have read the material **prior to class**.

Lectures:

Students should show proper classroom etiquette. *Please do not be late or leave early, this disrupts the class.* All cell phones should be turned OFF when entering the classroom. Students who arrive late or need to leave the lecture room early should sit towards the rear to avoid disrupting the class. Students should not disrupt other students (or the instructor) in 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. Recording of lectures is permitted.

Exams:

There will be four exams (23% 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 table below. The questions will be primarily multiple choice but will also include some written short answer. All questions will pertain to material covered in lectures and textbook readings.

Lecture 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.
 - c) 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.
4. Scantrons will be supplied. You do not need to bring your own.
5. 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.
6. ***You must attend the exam for your correct session.*** If you are enrolled in section 1 (9:30-10:20 am) you must take your exam at 9:30 – 10:20 am, and you will not be permitted to take an exam with section 2 at 12:30-1:20 session. There will be no exceptions to this policy. Similarly, you must take the final exam with your correct section.
7. ***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.
8. Prior to the exam, all books, notes and bags must be stowed under your seat.
9. Cell phones must be turned OFF and stowed during the exam period.
10. Go to the restroom before the exam. You will NOT be allowed to leave the exam.
11. Bring tissues if you have a runny nose. You will not be allowed to leave the exam.
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 the TA office hours or by appointment. 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:

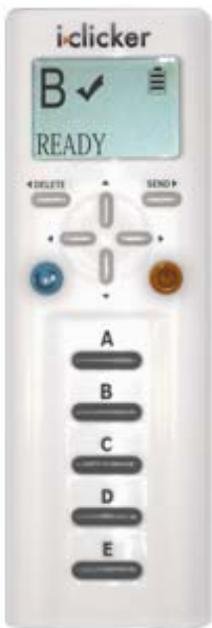
There will be 11 multiple choice online quizzes. Most are due by 11:59 pm Friday every week except exam weeks. Quiz 6 is an exception and is due on Wednesday 2/25 by 11:59 pm. Quizzes can be accessed in the class WebCourses site. Due dates for each quiz are listed in the schedule below. You will have 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, the two quizzes may not consist of the same questions.

The lowest quiz grade will be dropped. Thus 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 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 1/21. 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.

iclicker2 registration:

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.** Upon entering the class web page, you will find a tab on the left-hand side menu named "i>clicker". Click on that tab and then click again on the "i>clicker Registration" link. 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) Participation:

Clickers will be used to assess your overall attendance and participation. Your final participation grade is worth 4% 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 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:

$(\# \text{ of days you participated}) / (\text{total } \# \text{ of days clickers were used} - 2)$. 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) 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 must be done on your own. Discussing answers with neighbors prior to clicking is considered cheating and will be dealt with as such (see ETHICS section).**
- **Bringing a fellow student's clicker to class is cheating and will be dealt with as such.**

Extra Credit: There are two ways to earn extra credit in this course.

1) i>Clicker2 responses: Max possible = 2% added to your overall exam average (see "Clickers" section for details)

2) You-Tube Video: Maximum possible = Up to 2% added to your overall exam average.

The top 2 videos will also receive an additional 0.5% or 1%.

You have the opportunity to make a 1-2 minute video on any ecological topic covered in this course.

The video may be done individually or in a group of up to 4 students (you select your own group of 4, all group members must participate in the video production, and will receive the same grade).

- * **Due date:** No later than **April 17th** at 11:59 pm. No late submissions accepted for any reason.
- * The content of the video must be factually correct and may not be plagiarized.
- * Only one video can be submitted per student for credit.
- * Videos should be submitted to YouTube and the correct link and all group member first and last names emailed to the TA at EcoTA@ucf.edu.

Performance Evaluation:

Exams (4 x 23%)	92%
Web Quizzes	4%
Clicker participation	4%
Total =	100%

Grading Scale

A	93.0 - 100%	C+	77.0 - 79.9%
A-	90.0 - 92.9%	C	70.0 - 76.9%
B+	87.0 - 89.9%	D+	67.0 - 69.9%
B	83.0 - 86.9%	D	63.0 - 66.9
B-	80.0 - 82.9%	D-	60.0 - 62.9%
		F	0 - 59.9%

If you would like assistance in calculating your grade please visit <http://www.conquercollege.com/gradecalc/>. This will give you a rough idea of your grade, based on your exam scores. However, it may not predict your exact score due to rounding errors, dropped quizzes, and extracredit.

Final Grade Rounding Policy:

The overall semester grade will not be rounded. Either you have the grade or you don't. In other words, a 79.99 is still a 'C+'. No matter where we set the limit, there will ALWAYS be someone who is close to the next grade. As there are many students in this class we strive for consistency and fairness. For this reason, there will be no exceptions to this policy and no other adjustments will be made.

Study suggestions:

This is a fast paced class covering 25 chapters in the semester. To succeed it is essential that you stay caught up by reading, attending lectures, and studying the material. Students who prepare for the exams by simply attending lectures and reading their notes several times are unlikely to succeed on the exams. To succeed it is best to make your learning more active and focused. Active learning involves practicing the same skills you must perform on exams. In other words, quick recall of the appropriate information and applying it. To do this you should:

- A) Treat studying like it's a job. Set a schedule, show up for work, pay attention (i.e. no multitasking) while on the job. A general rule of thumb is 2-3 hours for every hour spent in class.
- B) Practice by Self-Testing. Make your own study questions: If you are like most people, you do not remember what you read/hear in sufficient detail to then be tested. However, it may be unclear which details you remember/understand and which you do not. The point in study questions is to figure out prior to an exam what you don't understand or have trouble remembering and work on that material. You do not want to realize during an exam that you don't understand something as well as you thought you did as it is now too late! For methods on how to most effectively write questions and use these questions, be sure to consult the study tips section on Webcourses.

Ethics:

UCF faculty supports the UCF Creed. Integrity - practicing and defending academic and personal honesty is the first tenet of the UCF Creed. This is in part a reflection of the second tenet, Scholarship: -I will cherish and honor learning as a fundamental purpose of membership in the UCF community. Course assignments and tests are designed to have educational value; the process of preparing for and completing these exercises will help improve your skills and knowledge. Material presented to satisfy course requirements is therefore expected to be the result of your own original scholarly efforts.

Plagiarism and cheating - presenting another's ideas, arguments, words or images as your own, using unauthorized material, or giving or accepting unauthorized help on tests - contradict the educational value of these exercises. Students who attempt to obtain unearned academic credentials that do not reflect their skills and knowledge can also undermine the value of the UCF degrees earned by their more honest peers.

UCF faculty members have a responsibility for your education and the value of a UCF degree, and so seek to prevent unethical behavior and when necessary respond to infringements of academic integrity. Penalties can

include a Z-designation, failing grade in an assignment or in the course, or suspension or expulsion from the university. See <http://www.osc.sdes.ucf.edu/> for more information about UCF's Rules of Conduct.

ZDesignation: UCF faculty members have a responsibility for your education and the value of a UCF degree, and so seek to prevent unethical behavior and when necessary respond to infringements of academic integrity. Penalties can include a failing grade in an assignment or in the course, suspension or expulsion from the university, and/or a "Z Designation" on a student's official transcript indicating academic dishonesty, where the final grade for this course will be preceded by the letter Z. If you are guilty of committing academic dishonesty, and it is determined that a "Z designation" will be applied, you will be assigned a zero for the assignment, and your final grade will be preceded by the letter Z on your permanent UCF transcript. For more information about the Z Designation, see <http://z.ucf.edu/>.

- SEE NEXT PAGE FOR THE LECTURE, READING AND EXAM SCHEDULE -

Lecture, Reading and Exam Schedule: ¹The dates of these topics serve as a guideline and are subject to change.

Week	Date	Lecture Topic ¹	Chapter ¹	Quiz due ²	Instructor
1	January 12, 14, 16	The Web of Life, Temperature and Water	1, 4	(1) 1/16 (Chs 1, 4, & syllabus)	GK
2	January 21, 23	<i>(Mon Jan 19= MLK Day = No Class),</i> Energy, Evolution and Ecology	5, 6	(2) 1/23 (Chs 5 & 6)	GK
3	January 26, 28, 30	Life History, Behavioral Ecology Population Distribution and Abundance	7 8 9	(3) 1/30 (Chs 7 & 8)	GK
4	February 2, 4, 6	Population Distribution and Abundance (cont) Wed Feb 4 = EXAM 1 (Chs 1, 4-9) Population Growth and Regulation	9 10	None	GK
5	February 9, 11, 13	Population Growth and Regulation (cont), Population Dynamics Competition	10 (cont), 11 12	(4) 2/13 (Chs 10 & 11)	GK
6	February 16, 18, 20	Competition (cont), Predation and Herbivore	12 (cont), 13	(5) 2/20 (Chs 12 & 13)	GK
7	February 23, 25, 27	Parasitism Mutualism and Commensalism Fri Feb 27 = EXAM 2 part a (Chs 10-15)³	14 15	(6) 2/25 (Chs 14 & 15)	GK
8	March 2, 4, 6	Mon Mar 2 = EXAM 2 part b (Chs 10-15)³ The Physical Environment	2	None	GK JW
Break	March 9-14	No Classes	-	-	-
9	March 16, 18, 20	The Biosphere The Nature of Communities	3 16	(7) 3/20 (Chs 3 & 16)	JW
10	March 23, 25, 27	Change in Communities, Biogeography	17, 18	(8) 3/27 (Chs 17 & 18)	JW
11	March 30 April 1, 3	Species Diversity in Communities Fri Apr 3 = Exam 3 (Chs 2-3, 16-19)	19	None	JW
12	April 6, 8, 10	Production, Energy Flow and Food Webs	20, 21	(9) 4/10 (Chs 20 & 21)	JW
13	April 13, 15, 17	Nutrient Supply & Cycling, Conservation Biology	22, 23	(10) 4/17 (Chs 22 & 23)	JW
14	April 20, 22, 24	Landscape Ecology & Ecosystem Management, Global Ecology	24, 25	(11) 4/24 (Chs 24 & 25)	JW
15	April 27	Global Ecology (cont.)	25 (cont.)	None	JW
Exam 4	Section 1: Fri May 1 at 7:00 am – 9:50 am** in HPA 112 Section 2: Fri May 1 at 10:00 am – 12:50 am** in BA 119		Chapters 20-25		JW

¹The dates of these topics serve as a guideline and are subject to change.

²All quizzes are due by 11:59 pm on the due date. See “Quizzes” section for more details.

³Exam 2 is divided into 2 parts on separate days. Part A will consist of the conceptual portions of the material from the unit and part B will include the mathematical applications of the material.

****NOTE** There is only ONE final exam for each section. Be sure to come to the exam for the section which you are registered. You will NOT be allowed to take the exam with the other section under ANY circumstances.
(Section 1 = regular class time 9:30 am = Final exam 7:00 am)
(Section 2 = regular class time 12:30 pm = Final exam 10:00 am)**

****NOTE** The final exam occurs earlier than your normal lecture. Don't be late!**