

PCB 3044: Principles of Ecology  
Fall 2013 Syllabus  
College of Science, Dept. of Biology



Instructor: Melinda Donnelly  
Section 1: MWF 8:30 am - 9:20 am

Lecture Location: HEC 125  
Section 2: MWF 3:30 pm - 4:20 pm

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**Instructor Contact Information**

E-mail: [mdonnelly@knights.ucf.edu](mailto:mdonnelly@knights.ucf.edu)

Office Hours: Monday & Wednesday- 1:00 pm-3:00 pm; Wednesday- 5:00 pm-6:00 pm or by appt.

Location: Biological Sciences Building (BIO), Room 102C

**Course Description**

Principles of Ecology: Elements of ecosystems, biogeochemical cycling, environmental factor interactions, population dynamics, and community development.

**Course Goals**

This course is intended for Biological Science majors & minors, Science Education majors and Pre-professional students and will examine structure and function of ecological systems, including populations, communities, and ecosystems, role of evolution in structure and function of systems, and influence of society on the biosphere. By the end of the semester, students who complete all necessary assignments will be able to:

1. Understand major concepts and terminology in the field of ecology.
2. Identify reputable sources for ecological information.
3. Comprehend the methods and application of ecological research.
4. Evaluate human interactions with nature and effects on natural systems.

**Course Credit Hours**

3 credits

**Course Prerequisites**

A grade of C or better in Biology II (BSC 2011C) and Chemistry Fundamentals 1 (CHM 2045C).

**Course Requirements**

Internet Access: This is a web enhanced course and all class announcements, lectures, supplementary reading material/activities, quizzes, and assignments will be posted on UCF Webcourses. All

assignments will be submitted electronically through UCF Webcourses. You will need to use your PID and myUCF password to log in.

Textbook: Cain, Bowman, and Hacker. 2011. Ecology, **2<sup>nd</sup> ed.** Sinauer Associates, Sunderland, MA. Available at UCF bookstore or digital version is available at <http://ebooks.sinauer.com>. Students can preview a chapter from the ebook before purchasing.

iClicker version 2: Available at UCF bookstore. In-class participation for a grade will begin on Monday, August 26 and all students need to own or rent an iclicker and have it registered by this date.

Registering your Clicker: Visit the following website to register your iclicker:

<http://www.iclicker.com/support/registeryourclicker/>

Important Registration Information:

1. When entering your First and Last Names, please use your official names according to UCF. **No nicknames or aliases.**
2. When asking for your Student ID, please use your official UCF **NID (Network ID)**, that is typically the first two letters of your first name followed by six (occasionally five) numbers.
3. Your alphanumeric i>Clicker2 remote ID is found on a bar code sticker on the bottom of the back of your i>Clicker2 remote. It typically consists of eight numbers and letters.

If you are having difficulty registering or using your iClicker contact a Technical Support Agent by calling **1-866-209-5658**.

### **Grade Scale**

A	90% or more
B	80-89%
C	70-79%
D	60-69%
F	59% or less

### **Grade Policies**

Grades for all assignments, quizzes, participation, bonus points and exams will be posted on UCF Webcourses. No grades will be given by e-mail. Questions about grades should be addressed during office hours or by appointment to maintain confidentiality. Anyone requiring grade forms signed during the semester must bring form to office hours. No grade forms will be signed before/after lecture or by e-mail.

For final letter grades in this course, grade percentages will be rounded to the nearest whole number (less than 0.5 will be rounded down, 0.5 and greater will be rounded up). Final grades will be calculated using the grading scale described in the syllabus and posted on UCF Webcourses after final exams. Please note, Webcourses often calculates grades incorrectly and the “final grade” and “current grade”

values shown on Webcourses may be inaccurate. Your final grade will be based on the following assessments:

<b><u>Assessment</u></b>	<b><u>Maximum Points</u></b>
1. Mid-Terms (3)	300
2. Final Exam	200
3. Assignments (3)	50
4. Quizzes (drop 2 lowest quiz grades)	50
5. Clicker Participation (drop 2 lowest grades)	50
<b>Total Points for Semester</b>	<b>650 points</b>

### 1. Mid-Term Exams

Three mid-term exams will be given during the semester and each exam will be worth 100 points. All exams will include math-related problems and use of a calculator (non-graphing) is recommended. All students must take the exams during their registered class time and failure to do so will result in a 0 for the exam grade.

### 2. Final Exam

The final exam will be cumulative and be worth 200 points. The final exam will include 50% of questions on chapters covered in Unit 4 and 50% of questions will come from previous units. Final exams will not be given early. The final exams will be on the following dates:

Section 1: Wednesday, December 4, 2013, 7:00 am to 9:50 am

Section 2: Friday, December 6, 2013, 1:00 pm to 3:50 pm

All students must take the final exam during their registered class time and failure to do so will result in a 0 for the final exam grade.

### 3. Assignments

There will be three assignments worth a total of 50 points towards your final grade. Detailed instructions for each assignment will be given in class (dates in class schedule) and posted on UCF Webcourses following lecture. All assignments must be turned in electronically (file types accepted- .pdf, .doc, .docx) to UCF Webcourses and must be submitted by midnight on due date for full credit.

Assignment 1: Journal Article Search (10 points) Due by Friday, September 6, 2013

Assignment 2: Critical Analysis of Journal Article (15 points) Due by Friday, October 4, 2013

Assignment 3: Annotated Bibliography (25 points) Due by Friday, November 15, 2013

### 4. Quizzes

All quizzes will be given through Webcourses and will be worth a total of 50 points (5 pts/quiz). Your first quiz will be a syllabus quiz and will be open on Webcourses during the first week of classes. For this

quiz, you have unlimited time per attempt and unlimited number of attempts. Eleven additional on-line quizzes will be given on a weekly basis during the semester. Quizzes will open on Mondays and close at midnight on Fridays and will cover the previous week's material. Due dates for each quiz are listed in the class schedule below. For each of the weekly quizzes, you will have two attempts and your highest grade out of the two attempts will be recorded. These quizzes are open book/notes, however, there will be a time limit of 30 minutes for each attempt, so review of material is recommended prior to taking quiz. All quizzes must be completed during scheduled time and no make-up quizzes will be given. The lowest 2 quiz scores will be dropped at the end of the semester prior to final grade calculation.

#### 5. Clicker Participation

Class participation points will be based on presence or absence of iclicker responses for each day with participation activities. Participation will be given at the discretion of the instructor and will not be announced in advance. Students are encouraged to bring the iclicker remote to class each day and to check batteries often. Only students responding with their registered remote will receive credit. Your 2 lowest participation grades will be dropped at the end of the semester (you get two freebies if you miss class or forget your remote) and worth a total of 50 possible participation points. There will be no make-ups for missed class participation.

#### Extra Credit

Each student has the chance for 30 total bonus points throughout the semester.

Multiple opportunities for extra credit points are available during the semester, including 10 total bonus points given for completion of on-line activities, 5 bonus points for attending one activity in the volunteer extra credit section below, 5 points for submitting a You-Tube video about your Journal Article Assignment topic, and iclicker participation extra credit.

1. On-Line Activities- 10 points possible, instructions and due dates will be posted on Webcourses. On-line activities must be submitted prior to posted due date to receive bonus points. No late submissions are accepted.

2. Volunteer Extra Credit\*- 5 points given for attending **one** of the following volunteer activities.

**Students must sign-in on class record sheet at events to receive extra credit. No exceptions!**

-Saturday, October 19, 2013: Mangrove and saltmarsh grass planting, oyster mat making with Volunteer UCF. Location: UCF campus, Biology Field Research Center (Bldg. # 92, UCF campus map), 10 am – 1 pm

-Saturday, November 16, 2013: Mangrove and saltmarsh grass planting. Location: UCF campus, Biology Field Research Center (Bldg. # 92, UCF campus map), 9 am-11 am

3. You-Tube Video\*- 5 points possible. Create a 2-minute You-tube video for the biodiversity topic you choose for your journal article assignments. The video can be an individual submission or group submission (group of 4 students max). Videos should be uploaded to you-tube and video link must be submitted electronically to the class Webcourses site by midnight on Monday, November 25<sup>th</sup>, 2013.

**4. iclicker Participation:** The total number of clicker responses for each unit will be used to give up to 2.5 extra credit points to each exam. This will be calculated by: your number of responses divided by the total possible participations for the unit and multiplied by 2.5.

\*If you have a legitimate reason (as determined by the instructor) for not being able to complete any of the above extra credit assignments, alternate assignments can be arranged with the instructor on a case by case basis. Please contact by e-mail or during office hours to arrange an alternate assignment.

### **Exam Policies**

All students will need to bring photo ID to all exams. Exams will not be accepted without photo ID. Calculators may be used on exams as needed, however, cell phones cannot be used as a calculator and calculators cannot be shared among students. Anyone observed talking, using cheat aids, copying off of another student, using a cell phone, or sharing calculators during an exam period will receive an automatic zero on the exam. Exams can be reviewed during office hours; however, exam review must be completed before the date of the following exam.

### **Make-Up Exams**

For unexcused absences on mid-term exam days, there will be no make-up exams. For excused absences on mid-term exam days (i.e. official UCF school and sports-related events, court appearance, etc.), official documentation must be given to the instructor within one week of absence and make-up exams will be given during office hours or during the final exam period. All excused make-up exams not completed by date of the following exam will be given during the final exam period. Illnesses will only be excused when accompanied by documentation of doctor's visit. No exams will be given early, including final exam.

### **Late Policy**

Assignments are due to UCF Webcourses by midnight on due dates posted in class schedule. Assignments turned in late will be penalized using the following scale: midnight to 24 hrs past deadline: -25% of points, 24-48 hrs past deadline: -50% of points, 48-72 hrs past deadline: -75% of points, after 72 hrs past deadline: no credit given. It is the student's responsibility to make sure assignments are uploaded correctly and submitted to UCF Webcourses by the due date. I strongly recommend double-checking your submission to be sure it was uploaded correctly and is visible on UCF Webcourses before the due date.

### **Incomplete Grades**

The current university 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. The 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.

## Classroom Policies

E-mails to instructor must be made from your official UCF address (name@knights.ucf.edu) and will not receive a reply if sent from other e-mail addresses. All e-mails from instructor will also be sent to your UCF address, so please check regularly throughout the semester. For all e-mails, please include your (1) 1st and last name, (2) course title (Ecology) and (3) section number. I will respond to e-mails as soon as possible, however, please expect at least 24 hrs for a response and longer during weekends and holidays.

Attendance of class regularly is necessary for successful completion of this course. Lecture slides will be posted on-line, however, additional material covered in class such as examples, practice problems and current event topics will be included on exams and may not be included in on-line lecture slides.

Please arrive on time for all class meetings and refrain from disturbing the class, including talking, arriving late or using electronic devices. Per university policy and classroom etiquette; mobile phones, iPods, etc. **must be silenced** during all class lectures and exams. Those not heeding this rule will be asked to leave the classroom immediately so as to not disrupt the learning environment.

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. A "Z Designation", meaning the letter Z will precede student's final grade for this course, will be placed on student's official UCF transcripts to indicate academic dishonesty (for more information on Z designation see <http://z.ucf.edu>). At the instructor's discretion, you may also receive a failing grade for the course and confirmation of such incidents can also result in expulsion from the University.

## 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 with disabilities who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met with the professor to request accommodations. Students who need accommodations must be registered with Student Disability Services, Student Resource Center Room 132, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.

## Class Schedule

\*Schedule subject to change and all changes will be given in class and posted on-line. All assignments and quizzes are due by midnight.

Unit	Week	Date	Lecture	Chapters	Assignments	Quizzes
Unit 1: Introduction to Ecology	1	Monday, August 19, 2013	Introduction to Ecology	1		Syllabus Quiz Opens
	1	Wednesday, August 21, 2013	Biodiversity	1		
	1	Friday, August 23, 2013	Physical Environment & Biosphere	2,3		
	2	Monday, August 26, 2013	Biosphere	3	Assignment 1 Instructions	Syllabus Quiz Due; Quiz 1 Opens
	2	Wednesday, August 28, 2013	Water & Temperature	4		
	2	Friday, August 30, 2013	Evolution and Ecology	6		Quiz 1 Due
	3	Monday, September 02, 2013	Labor Day Holiday- No Class			Quiz 2 Opens
	3	Wednesday, September 04, 2013	Life History Analyses	7		
	3	Friday, September 06, 2013	Life History Analyses & Exam 1 Review	7	Assignment 1 Due	Quiz 2 Due
	4	Monday, September 09, 2013	Exam 1	1-4, 6-7		
Unit 2: Populations and Communities	4	Wednesday, September 11, 2013	Population Distribution and Abundance	8	Assignment 2 Instructions	
	4	Friday, September 13, 2013	Population Distribution and Abundance	8		
	5	Monday, September 16, 2013	Population Growth and Regulation	9		Quiz 3 Opens
	5	Wednesday, September 18, 2013	Population Growth and Regulation	9		
	5	Friday, September 20, 2013	Population Dynamics	10		Quiz 3 Due
	6	Monday, September 23, 2013	Population Dynamics	10		Quiz 4 Opens
	6	Wednesday, September 25, 2013	The Nature of Communities	15		
	6	Friday, September 27, 2013	The Nature of Communities	15		Quiz 4 Due
	7	Monday, September 30, 2013	Species Diversity in Communities	18		Quiz 5 Opens
	7	Wednesday, October 02, 2013	Change in Communities	16		
	7	Friday, October 04, 2013	Change in Communities & Exam 2 Review	16	Assignment 2 Due	Quiz 5 Due
	8	Monday, October 07, 2013	Exam 2	8-10, 15-16, 18		
Unit 3: Community Interactions	8	Wednesday, October 09, 2013	Community Interactions and Energy	5	Assignment 3 Instructions	
	8	Friday, October 11, 2013	Energy	5		

	9	Monday, October 14, 2013	Production	19		Quiz 6 Opens
	9	Wednesday, October 16, 2013	Herbivory	12		
	9	Friday, October 18, 2013	Predation	12		Quiz 6 Due
	10	Monday, October 21, 2013	Parasitism	13		Quiz 7 Opens
	10	Wednesday, October 23, 2013	Energy Flow and Food Webs	20		
	10	Friday, October 25, 2013	Energy Flow and Food Webs	20		Quiz 7 Due
	11	Monday, October 28, 2013	Competition	11		Quiz 8 Opens
	11	Wednesday, October 30, 2013	Mutualism/Commensalism	14		
	11	Friday, November 01, 2013	Mutualism/Commensalism & Exam 3 Review	14		Quiz 8 Due
	12	Monday, November 04, 2013	Exam 3	5,11-14,19-20		
Unit 4: Biosphere	12	Wednesday, November 06, 2013	Biogeography	17		
	12	Friday, November 08, 2013	Biogeography	17		
	13	Monday, November 11, 2013	Veteran's Day Holiday- No Class			Quiz 9 Opens
	13	Wednesday, November 13, 2013	Nutrient Supply & Cycling	21		
	13	Friday, November 15, 2013	Global Ecology	24	Assignment 3 Due	Quiz 9 Due
	14	Monday, November 18, 2013	Global Ecology	24		Quiz 10 Opens
	15	Wednesday, November 20, 2013	Conservation Biology	22		
	15	Friday, November 22, 2013	Landscape Ecology	23		Quiz 10 Due
	16	Monday, November 25, 2013	Ecosystem Management	23	Extra Credit You-Tube Video Due	Quiz 11 Opens
	16	Wednesday, November 27, 2013	Class Cancelled- Happy Thanksgiving!			
	16	Friday, November 29, 2013	Thanksgiving Holiday- No Class			Quiz 11 Due
	17	Monday, December 02, 2013	Semester Wrap-Up- Review for Final Exam			
	17	Wednesday, December 4, 2013	Final Exam (Section 1) 7:00 am to 9:50 am	17,22,23,24		
	17	Friday, December 6, 2013	Final Exam (Section 2) 1:00 pm to 3:50 pm			