

PCB 3044: Principles of Ecology
Fall 2014 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 10:30 am - 11:20 am

Instructor Contact Information

E-mail: mdonnelly@knights.ucf.edu

Office Hours: Monday: 9:30 am to 10:15 am, 1:00 pm to 3:00 pm, Wednesday- 9:30 am to 10:15 am,
Friday- 1:00 pm to 2:30 pm or by appointment

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, and quizzes will be posted on UCF Webcourses. You will need to use your NID ID and password to log in.

Textbook: Cain, Bowman, and Hacker. 2011. Ecology, **2nd ed.** Sinauer Associates, Sunderland, MA. Digital version is available at <http://ebooks.sinauer.com> and www.amazon.com.

iClicker version 2: Available at UCF bookstore. In-class participation for a grade will begin on Wednesday, August 27 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 and I encourage you to calculate your grade throughout the semester using the following guide:

<u>Assessment</u>	<u>Maximum Points</u>
1. Exams (4 total)	400
2. Final Exam (cumulative)	100
3. Quizzes (11 total, drop lowest quiz grades)	50
4. Pre-Test	10
5. In-Class Participation (12 weeks, drop 2 lowest grades)	50
6. On-Line Participation (drop lowest grade)	30
7. On-Line Module	10
Total Points for Semester	650 points

1. Mid-Term Exams

Four 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 100 points. The final exam will include questions from all units. Final exams will not be given early. The final exams will be on the following dates:

Section 1: Wednesday, December 3, 2014, 7:00 am to 9:50 am

Section 2: Monday, December 8, 2014, 10:00 am to 12:50 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. 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. Ten additional on-line quizzes will be given on a weekly basis during the semester. Quizzes will open on Mondays and close at

11:59 pm on the following Sunday and will cover the previous week's material. 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 quiz score will be dropped at the end of the semester prior to final grade calculation.

4. Pre-Test

The pre-test will be open on Webcourses during the first week of classes. Completion of the pre-test during the designated time is required and will count as 10 points towards final grade (incorrect answers will not decrease grade, so don't worry if you are unsure of the answer!). **New policy for fall 2014: Completion of the pre-test will be used to verify participation in the course for financial aid purposes and not completing the pre-test by August 25 at 11:59 pm may delay disbursement of financial aid funds.**

5. In-class Participation

Class participation points will be based on iclicker responses for each day with participation activities (calculated weekly, 5pts/week, 12 total weeks). 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 weekly participation grades will be dropped at the end of the semester and participation will be worth a total of 50 points toward your final grade. There will be no make-ups for missed class participation.

6. On-Line Participation

On-line participation will be completed using the Discussion board on Webcourses for a total of 30 points possible. Instructions and due dates will be posted on Webcourses throughout the semester at the instructor's discretion. The lowest on-line participation grade will be dropped at the end of the semester.

7. On-Line Modules

Lecture class will be cancelled on Monday, November 3 and Wednesday, November 5. In place of lecture, there will be two on-line modules posted on Webcourses. Completion of these modules and associated quizzes and discussion posts is required and will be worth 5 pts for each module (10 pts total).

Extra Credit

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

1. Volunteer Extra Credit*- 10 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, September 27th, 9 am to 11 am: Mangrove and saltmarsh grass planting, oyster mat making.
Location: UCF campus, Biology Field Research Center (Bldg. # 92, UCF campus map)

-Saturday, November 15th, 11 am to 1pm: Mangrove and saltmarsh grass planting, oyster mat making.
Location: UCF campus, Biology Field Research Center (Bldg. # 92, UCF campus map)

2. You-Tube Video*- 20 points possible. Create a 3-minute you-tube video about one of the ecological concepts covered during the semester. 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 24th, 2014.

*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, doctor's visit, 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 on-line participation and quizzes will open on Monday at 8:30 am and are due by 11:59 pm on the Sunday after assignment opens on Webcourses.

Topic	Date	Lecture	Chapters	Quizzes
Unit 1: Introduction to Ecology	Monday, August 18, 2014	Introduction to Ecology		Syllabus Quiz and Pre-Test Opens
	Wednesday, August 20, 2014	Biodiversity	1	
	Friday, August 22, 2014	Physical Environment	2	
	Monday, August 25, 2014	Biosphere	3	Syllabus Quiz and Pre-Test Due; Quiz 1 Opens
	Wednesday, August 27, 2014	Biosphere	3	
	Friday, August 29, 2014	Water & Temperature	4	
	Monday, September 01, 2014	Labor Day Holiday- No Class		Quiz 2 Opens
	Wednesday, September 03, 2014	Energy	5	
	Friday, September 05, 2014	Evolution and Ecology	6	
	Monday, September 08, 2014	Exam 1	1 to 6	
Unit2: Populations	Wednesday, September 10, 2014	Life History Analyses	7	
	Friday, September 12, 2014	Life History Analyses	7	
	Monday, September 15, 2014	Population Distribution and Abundance	8	Quiz 3 Opens
	Wednesday, September 17, 2014	Population Distribution and Abundance	8	
	Friday, September 19, 2014	Population Growth and Regulation	9	
	Monday, September 22, 2014	Population Growth and Regulation	9	Quiz 4 Opens
	Wednesday, September 24, 2014	Population Dynamics	10	
	Friday, September 26, 2014	Population Dynamics	10	
	Monday, September 29, 2014	Exam 2	7 to 10	
Unit 3: Community	Wednesday, October 01, 2014	The Nature of Communities	15	
	Friday, October 03, 2014	The Nature of Communities	15	

Interactions	Monday, October 06, 2014	Competition	11	Quiz 5 Opens
	Wednesday, October 08, 2014	Herbivory	12	
	Friday, October 10, 2014	Predation	12	
	Monday, October 13, 2014	Parasitism	13	Quiz 6 Opens
	Wednesday, October 15, 2014	Mutualism	14	
	Friday, October 17, 2014	Commensalism	14	
	Monday, October 20, 2014	Exam 3	11 to 16	
Unit 4: Diversity of Communities	Wednesday, October 22, 2014	Change in Communities	16	
	Friday, October 24, 2014	Change in Communities	16	
	Monday, October 27, 2014	Species Diversity in Communities	18	Quiz 7 Opens
	Wednesday, October 29, 2014	Species Diversity in Communities	18	
	Friday, October 31, 2014	Production	19	
	Monday, November 03, 2014	No Class- On-line Module		Quiz 8 Opens
	Wednesday, November 05, 2014	No Class- On-line Module		
	Friday, November 07, 2014	Energy Flow and Food Webs	20	
	Monday, November 10, 2014	Energy Flow and Food Webs	20	Quiz 9 Opens
	Wednesday, November 12, 2014	Nutrient Supply & Cycling	21	
	Friday, November 14, 2014	Biogeography	17	
	Monday, November 17, 2014	Exam 4	16 to 21	
Unit 5: Biosphere	Wednesday, November 19, 2014	Global Ecology	24	
	Friday, November 21, 2014	Conservation Biology	22	
	Monday, November 24, 2014	Landscape Ecology	23	Quiz 10 Opens
	Wednesday, November 26, 2014	Ecosystem Management	23	
	Friday, November 28, 2014	Thanksgiving Holiday- No Class		
	Monday, December 01, 2014	Semester Wrap-Up- Review for Final Exam		
Section 1	Wednesday, December 03, 2014	Final Exam: 7:00 am to 9:50 am	cumulative	
Section 2	Monday, December 08, 2014	Final Exam: 10:00 am to 12:50 pm		