I. Course Information

Course Number:	PCB 4043C
Course Name:	General Ecology
Credit hours:	4
Lecture time:	Tuesday and Thursday, periods 3 and 4 (9:35 to 10:50)
Lecture office hours:	Tues & Thurs, 10:50 - 11:30, in lecture hall. Or contact instructor for an appointment.
Lab time:	4 periods, 1 day per week; times are posted on the course website
Location:	Announced on the course E-learning (Sakai) website
Course fees:	$46.00

Key information about the course is contained in this syllabus. Some details are subject to change. Any changes will be announced in class and on the course website.

II. Required Materials

Textbook	Ricklefs and Relyea *The Economy of Nature, 7th edition*. 2014. WH Freeman and Co. The LaunchPad version is required (6 months access to electronic textbook and online resources). Optionally, you may purchase a package that includes LaunchPad and a printed copy of the book. ISBN numbers and more details are provided in the UF course catalog. **Our course has its own LaunchPad url; access instructions are posted on the Homepage of the course E-learning website.** Use your GatorLink username (whatever comes before "@ufl.edu" in your UF email address) as your LaunchPad "LMS id".
Top Hat	We will use Top Hat (www.tophat.com/) to facilitate in-class participation. The 6-digit course code is 785824, and the direct link is https://app.tophat.com/e/785824. Use your GatorLink username as your Top Hat "Student ID". To participate in required in-class activities, you will need to bring a mobile device (laptop, tablet, smartphone, or cell phone with text messaging). Due to incompatibility with Internet Explorer, it is recommended that you access Top Hat using Chrome, Firefox, or Safari. A Top Hat account, which provides access to all Top Hat courses, costs $20 per semester or $38 for five years.
Lab manual	Available on course website
Statistics manual	Available on course website
Other readings	Additional readings may be posted on the course website.

III. Catalog Description

Ecological processes and organization in terrestrial and aquatic habitats. Laboratory and field exercises emphasize techniques of ecological analysis. (B)

IV. Pre-requisites and Co-requisites

BSC 2011, 2011L or equivalent, with minimum grades of C.

You need not be majoring in one of the biological sciences to succeed in the course, but you must have training in biology for rapid progress through the course. Thus, college-level biology is a prerequisite. If you are in doubt about your readiness for this course, please come and see an instructor during the first two weeks. To learn more about the practice of ecology as a scientific discipline, visit the Ecological Society of America web site.

V. Instructors

This course is co-taught by:
Dr. Jeremy Lichstein, Department of Biology, 317 Carr Hall
Dr. Jennie DeMarco, Department of Biology, 618A Carr Hall

VI. Course Website

A complete set of course materials and related information is available on the course E-learning (Sakai) website. Students are responsible for all announcements made in class and/or posted on the course website.

VII. Course Design and Objectives

We will study the basic principles of ecology, emphasizing population, community and ecosystem ecology. We will rely on a variety of approaches to learn about ecology and the way ecologists study natural systems. Lecture will emphasize general principles and models that underlie ecological theory and practice. The laboratory offers students hands-on opportunities to examine natural systems and to collect, analyze and interpret data. Students will also conduct independent research projects. Oral presentations and written reports will further help develop students' communication skills. By the end of the term, students should:

- understand the conceptual foundations of ecology;
- be able to apply quantitative tools (simple mathematical models, statistics, computer simulations) to ecological problems;
- be able to conduct independent research;
- be able to engage in intelligent discussions, and make informed decisions, about ecological and environmental issues;
- be prepared to pursue advanced study in ecology (e.g., at the graduate level), if they choose.

VIII. Course Overview and Schedule

A rough schedule of lecture topics is below. A more detailed schedule with reading and other assignments is available on the course website. The course website also provides the laboratory schedule.

Week	*Lecture Topic*
1	Introduction to Ecology and the scientific method; Using observations, experiments and models to understand ecological patterns and processes
2	Adaptations to aquatic and terrestrial environments
3	Climate and Soils
4	Exam 1
5	Evolution, adaptation, life histories, and reproductive strategies of organisms
6	Social behaviors of organisms; Population distributions
7	Population growth, regulation, and change over time and space
8	Exam 2; Predation and herbivory among species
9	Parasitism, disease, competition, and mutualism among species
10	Community structure and function

11	Community succession; Exam 3
12	Movement of Energy through Ecosystems
13	Movement of Matter through Ecosystems
14	Landscape Ecology and Global Ecology/Conservation
15	Exam 4

IX. Expectations and Philosophy

Commitment to excellence: As in most areas of biology, the amount of subject matter in the field of ecology has exploded in recent years. Moreover, the stakes of your learning are immeasurably higher given the current rate at which we are changing our planet. Our foremost concern is to provide you with a solid review of the subject matter, while allowing you the opportunity to explore and discuss ecological issues as they apply to our rapidly changing biosphere.

Our Responsibilities: We (the instructor and teaching assistants) will endeavor to help you succeed in accomplishing the above objectives. We will do our best to address your concerns and questions regarding the course materials, policies, and grading. You are encouraged to ask questions during the lectures. You are also welcome to speak with us during office hours, make an appointment, or contact us via e-mail.

Your Responsibilities: Your thoughtful participation and scholarship are essential to the success of this course. A significant portion of lecture and laboratory time will be devoted to open discussion and exchange of ideas. To facilitate this, you are expected to:

- Read and follow the instructions, guidelines and schedules in this syllabus and posted on the course website.
- Attend lectures. If you have to miss a lecture, obtain notes from a classmate—the instructor's PowerPoint slides alone will not suffice to explain all of the important information that is discussed in the classroom.
- View PowerPoint slides on the course website (posted prior to lecture).
- Complete all assigned readings and other homework on time.
- Read the assigned lab manual sections and take E-earning quizzes prior to your lab section.
- Attend the labs and carry out assignments in the lab manual. Notify your TA if you must miss a lab due to a legitimate conflict (see Attendance section below).
- Follow the UF honor code (see below).
- Please arrive at the meeting place for each lab on time. Otherwise, you will miss the lab quizzes. Field trips will depart on time. If you are late and miss a field trip, you may miss the entire points for the lab report for that trip.

X. Assessments and Grading

A. Suggestions

Your success in this course depends critically on keeping up with the lecture, readings, quizzes, homework and lab materials. The best way to earn an "A" is to attend lecture and lab, listen carefully, think critically, and read assignments in a timely manner as the course progresses. Last-minute cramming for exams is not a successful strategy; homework assignments and in-class activities are designed to prepare you for the exams. Synthesis and construction of linkages among concepts requires time and familiarity with the material. Reading quizzes and the laboratory quizzes should be straightforward if you read and digest the material in advance.

Teaching is an effective way of learning (just ask your instructors). We therefore encourage you to work in groups, explain concepts to one another (i.e., teach), and ask each other questions. Study for exams by going over practice exam questions provided to you. Challenge yourself to think through each problem and construct the answer yourself. Explain your reasoning to your study group; listen to other ways of solving the problem. Think.

B. Assignments and Grading:

Exams (lecture): There will be four "midterm" exams, but no "final" exam. Exams will be administered during normal class meeting times. Exams will not be cumulative, but instead will emphasize the recent topics covered in class and in homework assignments. All material discussed in lecture and assigned as homework for the lecture portion of the course is fair game for exams.

Exams and answer sheets will be provided, but students must bring #2 pencils to each exam. Each student must bring her/his Gator ID to class on exam days. No student will be allowed to start an exam after the first student to complete an exam leaves the classroom. All exams and answer sheets will be collected at the end of the exam period. Late arriving students will not be given additional time to complete an exam.

Exam Regrades: If you feel that we have graded your exam incorrectly, you may submit a written request for a regrade. Deadlines for requests are 1 week after return of the exam to you. Your request must be submitted 1) by the posted deadline to the instructor who wrote the exam; 2) with a typed cover letter detailing why you think you should receive additional credit; and 3) with the original copy of the exam. Your entire exam will be regraded. We will not entertain requests for 1-2 points. We are primarily concerned with correcting fundamental oversights, not minor and debatable issues. Of course, we'll be happy to discuss any aspect of the exam with you during our office hours. The goal is to have you master the material and understand the concepts.

Corrections of math or clerical errors (e.g., we added up your points incorrectly) can be made using the same procedure as above, although the exam will not be regraded.

Please note: We photocopy a subsample of the exams. Any alteration of your answer (e.g., writing in a new answer into a previously blank field or erasing an incorrect answer and replacing it with the correct answer) will result in a failing grade for the course and referral to the Dean for Student Affairs.

Make-up Exam Policy: Make-up exams will be administered in place of in-class exams that are missed due to unavoidable *schedule conflicts* or extraordinary *unforeseen circumstances* (see details below). The format of make-up exams will be at the instructor's discretion, and will typically be an essay exam.

- *Schedule conflict*: If you cannot take the in-class exam due to an unavoidable schedule conflict, you should notify your instructor at least two weeks prior to the in-class exam, or as soon as possible.
- *Unforeseen circumstances*: If you miss an in-class exam due to extraordinary unforeseen circumstances (e.g., medical emergencies), you must notify your instructor as soon as possible, and you must provide documentation of the circumstances that prevented you from taking the exam.

Reading Assignments: Readings are assigned to help you develop basic knowledge in ecology and to provide context for in-class lectures, discussions, and activities. Readings and lectures are *complementary*; one does not replace the other. Readings will expose you to a lot of content, not all of which will be covered in class. Lectures will cover selected topics in depth, including some material not covered in reading assignments. Readings should be completed *prior to class* on the date indicated in the course calendar. For optimal performance on graded, in-class activities, it is recommended that you carefully read and think about all assigned pages, including figures. Pay special attention to highlighted terms and review questions in the textbook, and to comments that your instructors embed in the LaunchPad e-book. It is recommended that you take notes as you read, so you can refer back to these notes when preparing for exams.

Homework (lecture): Homework assignments for the lecture part of the course are due 1 hour before class on the date they appear in the course calendar, unless stated otherwise. These include online graded quizzes on reading assignments, as well as Learning Curve exercises in LaunchPad (for which you will receive full credit if you complete the activity before the assigned date, and 0 credit otherwise). These and any additional homework assignments will be explained on the course website. You will have an opportunity to earn roughly 200 homework points during the semester (the point value of each assignment will be announced on the course website), and your semester homework grade will be calculated as a percent of the total possible homework points.

In-class Activities (lecture): There will be regular in-class activities (e.g., quizzes, polls, practice exam questions) that require your participation. These activities will be unannounced and may be graded for participation and/or for correctness (the instructions for each activity will specify the grading criteria). Typically, your responses will be submitted via Top Hat. You must have a Top Hat account and bring a mobile device to participate. You will have an opportunity to earn roughly 100 in-class points during the semester. You will receive 20 "free" points that will be added to your semester total, and your semester in-class grade will then be calculated as a percent of the possible earned points. For example, if 105 points are offered, and you earn 80 of these, then your grade would be (80 + 20)/105 = 95.2%. If your score is above 100%, it will be rounded down to 100%. The 20 "free" points are intended to offset problems with your mobile device (e.g., your battery ran out, or you lost your phone and have not yet replaced it), and to help you earn 100% credit for this part of the course if you attend class regularly and keep up with reading assignments. Missed points due to absence will be handled as described in the Attendance section below.

Laboratory: The laboratory section is graded separately by the teaching assistants, but the points are part of the overall course grade. Laboratory points come from a variety of online quizzes, in-class quizzes, short assignments, lab reports, and a multi-faceted independent project. Please look at the separate lab schedule to see assignments and points; these will be discussed in more detail in your lab section. *Lab sections meet the first week of class.*

Semester Grade Calculations:

Exams (4)	40% (10% each)
Homework (lecture)	10%
In-class (lecture) Activities	10%
Laboratory	40% (refer to the course website for a detailed breakdown)
Total	100%

Final semester grades will be curved according to a normal distribution with a mean of 83% and a standard deviation of 10% (see grade scale below). Accordingly, 90% of the class is guaranteed at least a C-, 62% of the class is guaranteed at least a B-, and 24% of the class is guaranteed at least an A-. Your final semester grade will be either your original grade or your curved grade, whichever is higher. Final scores will not be rounded (i.e., 89.92% is not 90%). The grade scale is:

A:	≥93%	D+:	≥67%
A-:	≥90%	D:	≥60%
B+:	≥87%	D-:	≥57%
B:	≥83%	E:	<57%
B-:	≥80%		
C+:	≥77%		
C:	≥73%		
C-:	≥70%		

Note that a "C–" is not a qualifying grade for critical tracking courses (e.g., Major, Minor, or Gen Ed). In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). A "C–" average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. More information on grades policies is at: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx.

C. Special Treatment

Please do not request individual special treatment regarding grading at the end of the semester; we do not adjust grades for individuals. Plan to do well on all exams and other assessments from the beginning of the semester. If you have ongoing challenges with the material or stemming from health issues, please see the instructor as soon as possible, so that we can help you.

XI. Email Communication

All email correspondence to course instructors must be sent from within the course E-Learning website using the Mail function. Correspondence regarding the lecture, homework and the overall course should be directed to the professors. Specific questions about the laboratory can be directed to teaching assistants. Please tick the option to send a copy of the email message to the recipients' UFL email accounts.

XII. Attendance

You are expected to attend all lectures and labs, and you are responsible for all material covered. If you are absent from class when a quiz or other activity requiring your participation occurs, you will receive a zero grade unless the absence is excused. An absence is considered *excused* if there is an acceptable reason according to UF policy (https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx). Examples of acceptable reasons are medical illness, religious holidays, military obligation, and the twelve-day rule. For religious holidays, students are required to notify the instructor prior to the absence, but documentation of the religious holiday is not required. In all other cases, the following policies apply: It is your responsibility to notify the instructor of an excused absence and to provide documentation of an acceptable reason. Otherwise, the absence will be considered *unexcused* and will result in a *zero grade* for any missed activities. Whenever possible, notify the instructor by email prior to the absence. When this is not possible (e.g., due to unexpected emergency or illness), the instructor should be notified as soon as possible. If you miss class for any reason (excused or not), you are responsible for the material covered. Visit the course website for any lecture slides/notes and course announcements. There are no make ups for missed in-class activities, even for excused absences. For in-class points missed due to excused absences, you will be assigned a point value based on your semester average (up to that date) for similar activities. For example, if you miss 5 Top Hat points due to an excused absence, and you have an 80% Top Hat average, then you will receive 4 Top Hat points. As noted above, you will receive 0 points if the absence is unexcused.

XIII. Time Commitment

The UF College of Liberal Arts and Sciences assumes that each student will devote 3-4 hours per week per credit-hour, including time in lectures and labs. PCB4043C is 4 credits, so you should expect to devote 12-16 hours per week (on average) to this course. A recommended time allocation is below.

Activity	Hours per Week
Lecture Period (in class)	3
Lecture Assignment	4
Lab Period (in lab or field)	4
Lab Assignment	3

If you find yourself spending more than 16 hours per week on this course, discuss this with your instructor to see if you can refine your work habits. If you find yourself spending less than 12 hours per week on average, please recognize that you may have difficulty learning and comprehending the material, and this will probably be reflected in poor performance on assessments, causing you to receive a lower overall course grade. Please also recognize that some weeks will require more work and some less than the overall average.

XIV. Conduct in Class

Please be courteous and do not talk during lecture, unless during a discussion period. This can be distracting to other students and the instructor.

Only approved electronic devices may be used in class when used to take notes or otherwise participate in classroom activities. Unapproved electronic devices include video recorders, digital cameras and MP3 players. Students who use unapproved devices in class will be considered disruptive. Multiple disruptions will be considered grounds for the assignment of a failing grade. Please discuss with the instructor in advance if you think have a legitimate use for an electronic device not mentioned here.

XV. Academic Honesty and the Honor Code

We expect all students to adhere to the University of Florida Honor Code. If you witness any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). Please note that cases of cheating and plagiarism in this class have resulted in grade reductions and the placement of letters in the students' permanent file, if not suspension or expulsion from the University.

The UF Honor Code (see: http://www.dso.ufl.edu/sccr/honorcode.php)

> *Preamble:* In adopting this Honor Code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the University community. Students who enroll at the University commit to holding themselves and their peers to the high standard of honor required by the Honor Code. Any individual who becomes aware of a violation of the Honor Code is bound by honor to take corrective action. A student-run Honor Court and faculty support are crucial to the success of the Honor Code. The quality of a University of Florida education is dependent upon the community acceptance and enforcement of the Honor Code.
>
> *The Honor Code:* We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:
>
> ***"On my honor, I have neither given nor received unauthorized aid in doing this assignment."***

In addition to this general statement of honor, the University has defined the following offenses as Academic Honesty Violations: Cheating, plagiarism, bribery, misrepresentation, conspiracy, and fabrication. They have further defined the following terms:

> *Cheating:* The improper taking or tendering of any information or material which shall be used to determine academic credit. Taking of information includes, but is not limited to, copying graded homework assignments from another students; working together with another individual on a take-home test or homework when not specifically permitted by the teacher, ... Tendering of information includes, but is not limited to, giving your work to another student to be used or copied ...
>
> *Plagiarism:* The attempt to represent the work of another as the product of one's own thought, whether the work is published or unpublished, or simply the work of a fellow student. Plagiarism includes, but is not limited to, quoting oral or written materials without citation on an exam, term paper, homework, ...
>
> *Misrepresentation:* Any act or omission with intent to deceive a teacher for academic advantage ...

We encourage students to work together and to help one another master the material. You can collect data together, help each other in the field, discuss ideas, practice presentations in front of one another, make up practice exams, critique drafts of each other's reports, etc. Despite this "group learning", the final product that you turn in for grading must reflect your own work. Any contribution from another individual must be credited (e.g., include an acknowledgement section that says "I thank person X and person Y for their helpful comments on a previous draft, and person Z for providing insights about differential equations.").

No discussion is permitted during exams; nor should any student discuss an exam given in class with a student who is taking a make-up (and has not yet taken an exam).

XVI. Accommodations for Students with Disabilities

Students who will require a classroom accommodation for a disability must contact the Dean of Students Office of Disability Resources. Please see the University of Florida Disability Resources website for more information at http://www.dso.ufl.edu/drc/. Note that the student should provide documentation of a requirement for accommodation to the instructor **by the second week of classes**. No accommodations are available to students who lack this documentation. It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. It is the student's responsibility to obtain this documentation, provide it to the instructors, and speak with the instructor a week prior to *each* exam.

XVII. UF Counseling Services

Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- The UF Counseling & Wellness Center (http://www.counsel.ufl.edu/, 3190 Radio Rd, 392-1575) offers psychological and psychiatric services. For Emergency Assistance, please see http://www.counseling.ufl.edu/cwc/Emergency-Services
- The UF Career Resource Center (http://www.crc.ufl.edu/, Reitz Union, 392-1601) offers career and job search services.
- Many students experience test anxiety and other stress related problems. “A Self Help Guide for Students” is available through the Counseling & Wellness Center website: http://www.counsel.ufl.edu/

XVIII. Software Use

All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.