

PCB 4043C – General Ecology

Syllabus for online course

Spring 2020 semester

I. Class Meetings

The entire course will be conducted online through the course Canvas website. You can directly access the Canvas login at <http://elearning.ufl.edu/>

II. Instructor

Mary K. Hart, Ph.D.

mkhart@ufl.edu

Office Hours: By Appointment (online or in-person in Bartram 316A)

III. Course Goals 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 this theory. Specific case studies will be drawn from real-world examples taken from the scientific literature. The laboratories will offer opportunities to examine natural systems, and to collect, analyze and interpret data. Oral presentations and assessments 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

IV. Expectations

Each student is solely responsible for reading and following the instructions, guidelines and schedules in this syllabus. **Not having read the information in this syllabus or in instructor announcements will not constitute an excuse for missing an assignment, exam, or other assessment.**

V. E-mail Communication

All e-mail correspondence to the course instructor must **originate from your ufl.edu account, have your full name in the body of the e-mail, and contain your course and section number in the subject line.** E-mails not meeting these requirements may not be recognized by our e-mail filters, and thus may not be answered. For the timeliest responses, use the Inbox Tool in Canvas.

VI. Course Resources

A. SimUText

- SimUText is software for accessing and completing SimBio modules that you will use in this course. Modules are Interactive Chapters or Virtual Labs.
- Simulated experiments allow you to learn by exploration, and in-module questions provide instant feedback to reduce misconceptions and track learning.
- You will access SimUText OUTSIDE of Canvas (but some Labs will require a digital Workbook that you will download from Canvas).

It is important that you review the information below *before* you subscribe to the SimUText for **Ecology** at **University of Florida**. **To avoid possible problems, do not wait until the last minute.**

- **CHECK YOUR TECH!** Visit <https://simutext.zendesk.com/hc/en-us/categories/200170134-Check-Your-Tech> to confirm that the SimUText application will work on your computer, and/or to explore your options if there is a problem.
- **SimUText Voucher Code (optional):** If you purchased a SimUText Voucher from your bookstore, be sure to have it with you when subscribing, as you will need to enter your voucher code.
- **Registration Link:** When you are ready to subscribe and download installers, follow this link to initiate the process:
<https://www.simutext2.com/student/register.html#/key/U67R-4Lxc-NRvQ-TD4X-TD7y>
- **SimUText Application Installers:** After you have completed the subscription process, if you need to download the SimUText application installers again, you will be able to access them by logging into the SimUText Student Portal (<https://www.simutext2.com/student/>).
- Should you encounter problems, you may need your course-specific Access Key. **It is: U67R-4Lxc-NRvQ-TD4X-TD7y**

Problems or questions? Visit SimUText Support (<http://simbio.com/support/simutext>). This is your first stop for SimUText technical support.

B. Visual Classrooms

Visual Classrooms is a space where several Intro Activities will be housed. You will access Visual Classrooms within Canvas. When you launch Visual Classrooms the first time (either from a module or assignment), you will quickly create a new account.

- When launched from the Module, you will start on the student dashboard.
- When launched from the assignment, you will be taken directly to that activity.

C. Course Website (e-Learning)

Class material including the syllabus, discussion readings, problem sets, exam results, and other information related to the course will be posted on the course e-Learning website (<http://lss.at.ufl.edu>). The course is found under “e-Learning in Canvas”. You are responsible for **all** announcements made in lecture and/or posted on the course website for this class. For help with e-Learning, call the UF Computing Help Desk at 352-392-4357, or visit the e-Learning support website: <https://lss.at.ufl.edu/help.shtml>

D. Lab Materials

You will need to gather materials for two of the labs. Most of these items you should be able to find around your house except for the Duckweed. You can order this from Carolina Biological (the link is below):

Duckweed Lab:

- Five 10-oz paper cups
- Pond water (preferably), or tap water (in a plastic container).
- Forceps or tweezers
- A light source (fluorescent light, greenhouse light, or window)
- 5 healthy duckweed plants.
 - Order them here *in advance*: https://www.carolina.com/aquatic-plants/duckweed-%20living-unit-%20of-100-%20150/161820.pr?intid=srchredir_duckweed
- Magnifying lens/jeweler's loop

Abundance Lab:

- 1 large nail
- 1 meter stick
- 1 piece of nylon string, about 1-1/2 m long

VII. Online Instruction Information

Each lecture will be close captioned, and will have an associated text file, but no PDFs of the slides will be available.

As part of PCB4043C, you are required to complete online assignments. If at any time you have questions about these assignments, please contact the Online Instructor. A schedule will be posted on e-Learning with the due dates for each assignment.

All assignments must be completed by the stated due date and time for full credit. Extensions will NOT be given because of technical or personal issues that occur within 24 hours of the assignment deadline.

You are expected to work by yourself on the assignments and cheating will not be tolerated. Note that all due dates for assignments are clearly posted on course website and reflect the most up-to-date information.

To facilitate actual discussion, a discussion forum will be set up in e-Learning in Canvas. Any questions regarding the lecture material or the online assignments should be posted there, so that your instructor, or your fellow students will be able to provide answers. Don't be shy about asking questions; after all, if you are confused about the material there will almost certainly be other students with the same questions.

Communication with Your Online Instructor:

When you have a question about the assignments, check the following sources first to see if it is already answered, **before** e-mailing your Online Instructor:

- Course Syllabus
- e-Learning announcements (this is the primary means that your Online Instructor has to communicate with you in a timely manner)
- e-Learning Canvas General Posts
- e-Learning Canvas Module Posts

If you still cannot find the answer to your questions:

- If it is a question that others might find useful to know the answer to as well, post it in the e-Learning Discussion section (General or the specific Module in Canvas).
- If it is a question specific to you (e.g. account or grade specific), e-mail your instructor. Barring unusual circumstances, expect a reply with 24 hours. E-mails and e-Learning Discussion posts are checked at least once per day, but sometimes not more than that.

Grading of Online Exercises:

There are several different types of assignments that students will have to complete. For most assignment types (activities, tutorials, etc.) you will receive a grade based on the grading rubric provided.

Because they are assigned well ahead of time, documentation of illness or a serious personal matter must be provided for **at least five of the seven days** of the week of the assignment's deadline for any accommodations to be made.

It is especially important not to wait until just before the deadlines to complete assignments. A computer problem happening just before the deadline is not a valid excuse for not completing the assignment. If there is a technical problem with accessing the website or a particular assignment within Canvas, you must contact *eLearning* technical support and the online instructor at least 48 hours prior to the deadline, so appropriate steps can be taken to fix the issue and appropriate extensions can be given if necessary. (Thus, check early that you can access the assignments. You will not be granted an extension for technical problems, if you do not contact the online instructor before the deadline). It is best to get your assignments done at least two days early. It is your responsibility to have and maintain all the equipment and services necessary to participate in an online course.

Repeated for emphasis: technical problems must be reported to the online instructor at least 48 hours prior to the submission deadline, no exceptions!

VIII. Assessments and Grading

A. Exams

There will be two exams, but no cumulative "final" exam. Each exam will cover material from video lectures, labs, learning activities, the online discussions, and the assigned reading in SimUText.

Exams will be multiple-choice and will be administered using ProctorU. **Each student must make an appointment to take the exams within the 72-hour open time window for each scheduled exam. DO NOT WAIT until the last minute to sign up for your exam dates/times. The earlier you sign up, the better chance you will have to get your desired testing time. ProctorU does charge additional fees for late sign ups.** *For detailed instructions on how to sign up for exams and about Proctor U go to the "Proctor U" tab in the "Start here" section on the course website.*

If necessary, exams MAY be scaled using the following approach: The top 3% of the scores will be averaged, and the difference from 100 points will be added to each exam score. Exams will be available for review by appointment for one week after the exam date; specific times for exam review will be announced following each exam. Exams will **not** be available for review after the semester has ended. You must make an appointment with me to review your exam.

Make-up Exams: No make-up exams will be given without prior permission or documentation of illness. Students that will be missing an exam due to a pre-arranged university-approved excused absence (sports, etc.) should let the instructor know **a minimum of two weeks in advance**. These students may be required to take the make-up exam *before* the scheduled in-class exam.

In case of illness on exam day, a letter from the student's primary care provider is required. This letter must state that the student was unable to complete the exam on the scheduled date (i.e., a letter stating only that the student was seen in a clinic is not sufficient). A personal matter requires a note from the Dean of Students (P202 Peabody Hall). These notes must be received within five business days after the exam. Make up exams may be short-answer or essay format.

B. Introductory Activity

Each module has one Introductory Activity, which will open before the other items in the Module (at 3 pm each Sunday). You will either complete this activity in Visual Classrooms or as an assignment in Canvas. You are not graded on correctness but on effort. Scores will be marked as Complete or Incomplete.

C. Reading Quizzes

Each subsection of the SimUText chapters have end of reading quiz questions. You will access these OUTSIDE of Canvas. You will be graded based on number of questions answered correctly out of total number of end of reading questions in the SimUText chapter, scaled to 10 points. Please see "Participation" (Part G) regarding the within-text questions in SimUText.

D. Labs

Almost every module will contain one lab (Module 2 has two labs, Module 12 has none). These labs, unless otherwise stated, will be graded based on the specific grading rubric for each assignment. Each lab will be weighted equally. Rubrics for each lab are available in their module section. It is advisable to look at the rubrics prior to submitting your lab to make sure you have included all of the required information for the assignment. There are three types of labs:

1. SimUText tutorial labs, which are individual and entirely in SimUText,

2. SimUText workbook labs, which are individual, and require you to use a Workbook supplied to you in Canvas, as well as submitting answers through SimUText, and
3. Canvas labs, which may be individual or group-based, and will be administered through Canvas entirely.

Please see above in VI. Course Resources, Part D in reference to materials you will need for the lab.

E. Journal Clubs

There are 5 Journal Clubs throughout the semester. Journal Club is a group activity in which you are going to discuss a scientific article (or 2 short articles), which will be provided for you. This activity will be facilitated by a “discussion facilitator” who is randomly assigned to one member of your group by Canvas.

1. Every group member reads the article.
2. Facilitators meet with Dr. Hart in a synchronous online Zoom meeting before posting their questions. Participation is mandatory (Tuesday 6:00 pm or scheduled).
3. Facilitator posts his/her questions s/he has prepared before the discussion begins, in addition to any questions prepared by Dr. Hart by Wednesday 11:59 pm.
4. Discussion begins after the questions are posted.
 - Participants (not the discussion leader) post their initial entry by Thursday 11:59 am
 - Participants must reply to the posts of other participants by Saturday 11:59 pm.
 - Discussion facilitator follows up the initial entries and replies by asking more questions or adding his/her perspective based on the ideas in the article.
 - Participants must reply to any follow-up questions on their initial entries by Monday 11:59 pm.
5. At the end of the group discussion, each member reviews how the group discussion went and how participants contributed to the discussion through peer review and rubric in Canvas.

F. Collaborative Space

Almost every Module has an assignment called Collaborative Space. These assignments will require you to either post a question or comment to the discussion board in Canvas and then respond to peers' posts OR participate in a group discussion and submit answers to an assignment as a group. The instructions for each assignment will indicate which format should be used.

G. Participation

There are questions within the SimUText chapters (often labeled as “Check Your Knowledge”) as well as questions within the SimUText Lab tutorials (lab type 1, above in Part D, Labs) and the Lab Workbooks (lab type 2, above in Part D, Labs. These will not be graded for correctness but for effort. However, you will be assessed on completion of these items. Scores will be marked as Complete or Incomplete.

	Grade Type	Course Total Percentage
Grading Summary Assignment		
Participation (questions within SimUText chapters, SuT labs and Workbooks)	Complete or Incomplete	10%
Introductory Activities	Complete or Incomplete	5%
Labs (group and individual)	Score	25%
Exams	Score	20%
Reading quizzes (end of subsection questions in SimUText)	Score	10%
Journal Club (peer reviewed)	Score	15%
Collaborative Space	Score	15%
Course total		100%

Assignment totals are subject to change at the discretion of the instructor.

All grades will be posted on e-Learning, and it is the responsibility of the student to check their grades on e-Learning to make sure they are accurate. If there is a discrepancy you must let us know within ONE week of the grade being posted on eLearning.

Minimum grade cutoffs are listed to the right. Because each exam may be curved individually (see section VIII-A, above), the scores for the course as a whole will not be scaled (i.e. these grade cutoffs will not be lowered) except under extremely rare circumstances (i.e., unless we tell you otherwise these cutoffs will not be lowered, so do not ask). However, these cutoffs will not be raised; in other words, if you receive 90% of the possible points, you are guaranteed to earn an A grade. Final scores will NOT be rounded (i.e., 89.99% is not 90%).

Note that the current UF policy for assigning grade points is available at the following undergraduate catalog web page:
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Point Range (%)	Letter Grade
≥ 90.00	A
≥ 86.66	A–
≥ 83.33	B+
≥ 80.00	B
≥ 76.66	B–
≥ 73.33	C+
≥ 70	C
≥ 66.66	C–
≥ 63.33	D+
≥ 60	D
≥ 56.66	D–
> 56.66	F

IX. Other Information

A. Computing Requirements

It is the responsibility of the student to maintain a functioning computing system and internet connection. Computing/internet connectivity issues will NOT be acceptable excuses for missed deadlines unless they are brought to the attention of the instructor **at least 48 hours prior to the deadline** and accompanied by the ticket number from technical support. See Resources for Technical Support contact information
Microsoft Office programs are required for many of the assignments; it can be accessed by current UF students through GatorCloud.

B. Special Treatment

Please do not request individual special treatment regarding grading at the end of the semester; **I do not adjust grades for individuals for any reason.** Plan to do well on all exams and other assessments from the beginning of the semester; if you are having difficulty in the class, please let me know *before* the exams rather than after.

X. Academic Honesty

All students registered at the University of Florida have agreed to comply with the following statement:

“I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University.”

In addition, on all work submitted for credit the following pledge is either required or implied:

“On my honor I have neither given nor received unauthorized aid in doing this assignment.”

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). You are expected to review and abide by the University of Florida Academic Honesty Guidelines at:

<https://catalog.ufl.edu/ugrad/current/advising/info/student-honor-code.aspx#honesty>.

Cheating, including plagiarism will result in consequences which many range from a 0 on the assignment to a failing grade for the entire course. Sanctions for cheating may be applied in a retroactive manner.

XI. Attendance

Students are expected check the course website regularly for announcements, assignment due dates, and other course related information. Students are to complete all assigned work (quizzes, activities, discussions, and exams) by the due date. Students are strongly encouraged to follow the order of materials as listed in each Module as this will make it easier to comprehend the material.

XII. Time Commitment

The UF College of Liberal Arts and Sciences assumes that each student will devote 3-4 hours per week per credit-hour to each course, including time in lectures and labs. Because PCB4043C is 4 credits, each student should therefore expect to devote 12-16 hours per week to this course during a regular semester, or 17-19 hours per week during the summer. A recommended time allocation is to the right.

Activity	Hours per Week
Lectures/Videos	1
Online Exercises	7-9
Textbook Readings	2-3
Review and Study	2-4

If you find yourself spending more than the recommended number of hours per week on average on these activities, discuss this with your course instructor to see if you can refine your study habits. If you find yourself spending less than the recommended number of hours per week on average, you should recognize that you may have difficulty learning and comprehending the material in this time, and this will probably be reflected in poor performance on the various assessments, causing you to receive a lower overall course grade.

XIII. Conduct in Class

Please review the “**Netiquette guide**” for online courses in the “*Start here*” section on the course website.

XIV. 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, in Peabody 202 (phone: 352-392-1261). 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 **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. Once notification is complete, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

XV. Counseling Center

Many students experience test anxiety and other stress related problems. “A Self Help Guide for Students” as well as a diverse array of support systems are available through the UF Counseling and Wellness Center (3190 Radio Road, 392-1575, <http://www.counsel.ufl.edu/>).

XVI. Course Evaluation

To improve the teaching and learning of this important course, students are required to submit a teaching evaluation for each instructor electronically via this website: <https://evaluations.ufl.edu/evals/>

Evaluations are stored and reported in a completely anonymous manner. Authentication for evaluation submission is only to ensure that only one evaluation is submitted per student per instructor.

XVII. Course Schedule

This is a tentative schedule; the dates and coverage of specific topics are subject to change.

Start/ End Dates	Module # and Name	Readings	Assessments
1/6 - 12	0: Start Here	Syllabus Netiquette document Academic integrity Canvas 101 video SimBio page	Reading Quiz: Course Orientation Quiz
			Collaborative Space: Introductory post
1/6 - 12	1: Ecology Overview	SimUText: Evolution for Ecology Sections 1, 2	Intro Activity: Nature walk
			Reading quiz: SimUText sections
			Individual Lab: SimuText Tutorial: Understanding Experimental Design
			Collaborative Space: None
1/12 - 19	2: Evolution & Physiology	SimUText: Physiological Ecology Sections 2, 3, 4	Intro Activity: Adaptation vs Acclimation
			Reading quiz: SimUText sections
			Individual Lab: Analysis in Excel Group Lab: Create the Ideal Species
			Collaborative Space: Create The Ideal Species, comment on at least two others.
1/19 - 1/26	3: Climate & Biomes	SimUText: Biogeography Section 4 Physiological Ecology Section 1	Intro Activity: VC Circulation Cells and Ecosystems activity
			Reading quiz: SimUText sections
			Group Lab: Climate diagrams and biomes
			Collaborative Space: Present the climate diagram to the class for feedback, comment on at least two other lab group's diagrams.
1/26 - 2/2	4: Evolutionary Strategies Among Organisms	SimUText: Life History Sections 1, 2, 3, 4	Intro Activity: Lizard mass graph
			Reading quiz: SimUText sections
			Individual Lab: Duckweed Lab
2/2 - 9	5: Population Growth and Regulation	SimUText: Population Growth Sections 1, 2, 3, 4	Intro Activity: VC Factors affecting growth
			Reading quiz: SimUText sections
			Individual Lab: Measuring Abundance
			Journal Club 1: Article(s) TBA
2/9 - 16	6: Competition	SimUText: Competition Sections 1, 2, 3, 4	Intro Activity: Generate Growth Trajectory
			Reading quiz: SimUText sections
			Individual Lab: The Barnacle Zone SimUText WB
			Collaborative Space: Discuss your results from the Abundance lab. Journal Club 2: Article(s) TBA

2/20		EXAM 1 (Modules 1-6)	
2/22 – 2/27*	7: Ecology of Disease	No Readings	Intro Activity: Plot the density data
			Reading quiz: NONE
			Individual Lab: How Diseases Spread SimUText
			Collaborative Space: West Nile Virus
3/8 - 15	8: Species Interactions	SimUText: Predation, Herbivory, Parasitism Sections 2, 3, 4	Intro Activity: Species interactions table
			Reading quiz: SimUText sections
			Individual Lab: Isle Royale SimUText <i>Duckweed Results due</i>
			Collaborative Space: Duckweed predation
3/15 - 22	9: Behavioral Ecology	SimUText: Behavioral Ecology Sections 1, 2, 3, 4, 5	Intro Activity: Applying the Marginal Value Theorem
			Reading quiz: SimUText sections
			Lab: Ethograms: scan sampling vs focal animal sampling
			Collaborative Space: Sampling Data
			Journal Club 3: Article(s) TBA
3/22 - 29	10: Community Structure, Food Webs, Energy Flow	SimUText: Community Dynamics Sections 1, 2, 3, 4	Intro Activity: VC Food chains
			Reading quiz: SimUText sections
			Individual Lab: Top-Down Control SimUText WB
3/29 – 4/12**	11: Ecosystems: Biogeochemical Cycling	SimUText: Nutrient Cycling Sections 1, 2, 3, 4	Intro Activity: VC Box and Arrow Diagram Introduction
			Reading quiz: SimUText sections
			Individual Lab: Nutrient Pollution SimUText WB
			Collaborative Space: Gersmehl diagrams
			Journal Club 4: Article(s) TBA
4/12 -19	12: Landscape Ecology & Biogeography	SimUText: Biogeography Sections 1, 2, 3	Intro Activity: VC Island Biogeography in Central Park
			Reading quiz: SimUText sections
			Lab: NONE
			Journal Club 5: Article(s) TBA
4/22		EXAM 2 (Modules 7 - 12)	

*Note that due dates for this week do not follow typical pattern due to Spring break. **Note that Module 11 takes two weeks to complete.