General Ecology Syllabus

Biology 372, 4 credits, WSU Pullman campus, Fall 2014
Course Prerequisite: Biology 106; Chemistry 102 or 105

Instructor	**Dr. Jesse Brunner**
Office hours	Tu/W 10:30-12:00, or by appointment
Location	283 Eastlick Hall
Email	Jesse.brunner@wsu.edu
Phone	(509) 335-3702
Lectures	Tu/Th 9:10-10:25 in Todd Hall 430
Labs	Eastlick G94

TA	**Amanda Meadows**	**Ricky Berl**		**Fernando Villanea**	
	Sect 1	Sect 2	Sect 3	Sect 4	Sect 5
	Tu 2:50-5:40	W 12:10-3:00	W 3:10-6:00	Tu 12:00-2:50	Th 12:00-2:50
Email	amanda.meadows@wsu.edu	richard.berl@wsu.edu		fervillanea@wsu.edu	
Office hours	M 11:00-1:00, or by appt	M 12:00-2:00, W10:00-12:00, or by appt		T/Th 10:00-12:00, or by appt	
Location	FSHN 258B	271B Eastlick		271B Eastlick	

Text book SimUText Ecology, by SimBio. Instructions for how to purchase this e-textbook are on the Piazza.com site… (and I emailed you the instructions as well!)

Webpage & Email We will use Piazza for class discussion and course management. You will find **course documents** (e.g., the schedule, lecture notes, keys to the quizzes and exams) as well as any **announcements**. ***Rather than emailing questions to the teaching staff, you need to post your questions on Piazza***.

Our class page is at: https://piazza.com/wsu/fall2014/biol372/home

Check this site often for answers, updates, and announcements. If you have any problems or feedback for the developers, email team@piazza.com. PLEASE register with a username that *begins your last name*.

PLEASE provide your correct email address, *one that you actually check*, to Piazza *and* to WSU's zzusis.

Course objectives

Ecology is "the scientific study of the distribution and abundance of organisms and the interactions that determine distribution and abundance" (p. xi, Begon, Townsend, and Harper. 2006. Ecology, 4th ed.). It is a tremendously diverse field of study, reflecting the incredible diversity of life, as well as the many types and levels of interactions that influence organisms. This class is very much a survey of a few of the many exciting topics in ecology. We can't know everything, but we can try to see the broad outlines.

My first goal in this class is for you to **develop an ecological intuition** based on rules of thumb, approximations, and a deep understanding of the processes and interactions that lead to ecological patterns. Second, I want you to **understand the types of questions that ecologists ask**, how they relate to one another, and how we go about answering them. My last goal is for you to **learn to think about how data support or refute hypotheses**. This means being able to carefully formulate your expectations and interpret information from scientific studies, particularly graphs, tables, and mathematical models. By the end of this course these things should be second nature to you.

Learning Outcomes

We will touch on all six of the learning outcomes of the School of Biological Sciences. The specific aspects are emphasized or in brackets:

1. *Understand and explain major* biological [*ecological*] *concepts*.
2. *Use critical thinking and scientific skills to analyze and solve problems*.
3. *Effectively communicate biological problems and solutions to* both *the scientific community* and the public at large *in writing* and in discussion.
4. *Formulate logical hypotheses and test them by designing and running appropriate experiments or observational studies and analyses*.
5. *Identify the central body of knowledge* in biology or zoology (genetics, evolution, *ecology* and organismal biology, molecular biology).
6. *Use scientific literacy and knowledge of* biology or zoology [*ecology*] *to analyze contemporary* social and *environmental issues and contribute to informed opinion*.

Your achievement of these outcomes will be assessed with graded end-of-chapter questions (1,2,5,6), regular in-class quizzes (1,2,4,5,6), and examinations (1-6), as well as laboratory exercises and writing assignments (2-4,6).

Grading, Exams and Quizzes

The distribution of grades is as follows (there is no curve):

A 92-100%	B^+ 88-89	C^+ 78-79	D^+ 68-69
A^- 90-91	B 82-87	C 72-77	D 60-67
	B^- 80-81	C^- 70-71	F ..... < 60

Your final grade will be composed of your lecture grade (60%) and your lab grade (40%); you must pass the lab in order to pass the class.

	% Lecture Grade	% Final Grade
Exam 1	10	6
Exam 2	15	9
Exam 3	20	12
Exam 4 (final)	20	12
SimUText Questions	25	15
In-class Quizzes	10	6
Lab	---	40

Exams: You will have three 50-minute exams in class and a comprehensive **final exam scheduled from 10:10AM to 1:00PM on December 15th**. I am not allowed to offer the

final early. The final will have the same format as the in-class exams. The readings, lectures, and discussion topics are all fair game. The exams will include a combination of multiple choice, fill in the blank, and short essay questions focused on synthesizing the concepts and information we cover. I will almost certainly ask you to draw or interpret graphs, diagrams, and maps.

It is your responsibility to arrive at the exam on time. Students who arrive late will not be given additional time, and anyone arriving after other students have finished and left will not be permitted to take the exam.

Scheduling makeup exams: If you have a significant scheduling conflict (e.g., grad school interviews, required class trip) you must schedule a makeup exam at least two weeks in advance of the exam. After that, a make-up exam will not be given unless you can document circumstance *beyond your control* that *unexpectedly* prevented you from taking the exam. Failing to take a scheduled exam will result in a score of 0 unless replaced by a make-up exam in a timely fashion.

SimUText Questions: At the end of each assigned section in the textbook are a series of graded questions. These **graded questions must be submitted before the class period listed on the schedule** (i.e., if the section is due on 23-Aug, then those questions must be answered and submitted before class on 23 August).

Quizzes: There will be regular (at least weekly) in-class quizzes. These are designed to be low-stress, but interesting questions to help you test yourself, make connections, and see what sorts of questions I'm liable to ask on exams. NOTE: You can achieve up to 50 points on the quizzes, but there should be at least 75 points worth of quizzes available, so no make-up quizzes will be given.

Attendance: Attendance in lecture is encouraged, but not required. **Attendance in the laboratory is mandatory. Missing more than two labs will result in you failing the class**. If you foresee any issues, please talk to you TA as early as possible.

Notes on the textbook and readings:

We are using the SimUText Ecology textbook, which is entirely electronic (although you can print out the text) and interactive. There are many simulations, "experiments," and questions embedded throughout the chapters designed to help you understand the material and, if nothing else, make you think a little bit. I can see your answers to these questions, which can help me determine what needs further clarification, but only the questions at the end of each section are graded. These **graded questions must be answered before the class period listed on the schedule**.

I expect you to **come to class having already read and**, to the best of your abilities, **understood the assigned readings**. Lectures are the time to clarify the concepts (i.e., come with questions ready) and elaborate on them.

If you have any technical trouble with the textbook, please first consult their short guide to success with SimUText (http://simbio.com/downloads/SimUText/SixRulesForSimUTextSuccess.pdf) or use the online help (http://simbio.com/support/simutext). There is a link on this page to get direct help. I have no ability to fix or modify accounts, etc.

Reasonable accommodation

Reasonable accommodations are available for students with a documented disability. If you have a disability and may need accommodations to fully participate in this class, please either visit or contact the Access Center (Washington Building 217; 509-335-3417; http://accesscenter.wsu.edu; Access.Center@wsu.edu) to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center.

Scholastic dishonesty

I expect students to act with integrity and follow the University's Code of Academic Integrity. No exceptions.

You are encouraged to study together and to discuss information and concepts covered in lecture and laboratory with other students. You can give and receive "consulting" help. However, all work you submit must be your own. Anyone caught cheating or plagiarizing on any assignment or exam in lab or lecture will be given an F for the entire course. Cheating is defined in the Standards for Student Conduct WAC 504-26-010 (3). It is strongly suggested that you read and understand these definitions. If you have any questions or doubts about what might constitute cheating or plagiarism, please talk to me or your TA and consult these websites: http://conduct.wsu.edu/ and http://www.wsulibs.wsu.edu/plagiarism/main.html

Communication

I prefer that academic questions be asked either in class or on Piazza so everyone can benefit from the discussion, or during office hours. On Piazza I will do my best to respond within 24h, although this is not always possible. As a result, please do not use email as a means to ask last-minute questions before an exam. Please do try answering and editing other student's responses. Often your answers will be more to the point than mine! **Make sure that WSU/ZZUSIS and Piazza has your current email address on file**, the one you actually check and read.

Also, I would appreciate it if you would knock on my door and wait for a response before just coming in. A little bit of politeness goes a long way. Thanks!

Suggestions on how to succeed in BIOL 372

Effort: This is a college level science course. You will likely to have to work hard to earn a good grade. Attend the lectures, read the textbook *before* class, review your notes afterwards, and make sure you identify and then clarify the confusing concepts. *At a minimum, you should devote at least 2h for each hour of lecture, more if you find the material challenging or want to do well*.

Concepts: This course focuses on concepts as well as concrete terminology and facts. I want you to understand the patterns and processes of ecology and the ways in which biologists study ecology. So make sure you can extrapolate from the examples given in class to new, but similar, situations.

Learning styles: Everyone learns differently. Figure out how you learn and play to your strengths. If the past is any guide, however, one of the most effective methods of studying for this class is studying in a group.

Resources: Make sure you take advantage of all of the resources available to you to

answer questions and clarify your understanding—your textbook, the web, other students, your TAs, and me. Seek help early and often. Remember, we rarely answer the question you do not ask.

WSU Safety

Washington State University is committed to enhancing the safety of the students, faculty, staff, and visitors. It is highly recommended that you review the Campus Safety Plan (http://safetyplan.wsu.edu/) and visit the Office of Emergency Management web site (http://oem.wsu.edu/) for a comprehensive listing of university policies, procedures, statistics, and information related to campus safety, emergency management, and the health and welfare of the campus community.