BIO 320 FUNDAMENTALS OF ECOLOGY Spring 2013
Lectures: Tu, Th 3:00-4:15 in LSE 104

Instructor:	**email:**	**Office:**
Kevin Gurney, MPP, PhD	kevin.gurney@asu.edu	LSA 364: TuTh 9:30-10:30
Nancy Grimm, PhD	nbgrimm@asu.edu	LSA 316: WTh 10:30-11:30

Text: We will be using an online textbook, SimUText by SimBio. Please log on to Blackboard to see instructions to subscribe to the text (if you have not already received an email from the instructors). A significant portion of your grade will come from homework in this textbook, and much of the material we cover in the class is from the textbook, so it is essential for you to obtain this online text.

Lecture TAs:
Jessica Corman (jrcorman@asu.edu) and Eric Chapman (ejchapma@asu.edu).
Office Hours
Jessica : Wednesday 2 :15 – 4 :15 pm in LSA 227
Eric : Thursday 9 :45 – 11 :45 am in LSA 206

The TAs primary job is to assist the instructors by preparing materials for class, assisting with lectures, interfacing with testing services, disability services, etc. The TAs will also run a review session before each exam and answer questions via email. Questions on exams, homework, and other routine course issues should be addressed to the TAs FIRST. If it cannot be resolved, Dr. Gurney/Grimm will be engaged.

Powerpoints of the lecture material will be posted on our class website (go to myASU → Blackboard → BIO320). You should check the class website for newly posted materials prior to each class. While we will make every attempt to post lecture material prior to each class, this is not a guarantee. These posted lectures should be used as a guide or outline of the content to be presented - not as comprehensive reviews of lecture material: exams cover all lecture, textbook, and homework material and some of this will *not* be found in these on-line outlines or in the textbook. The bottom line is that on exams you are responsible for all information discussed in lecture, homework and the textbook. *If you miss a lecture, you are responsible for obtaining lecture notes from a fellow student.*

Exams:
There are NO make-up exams. There will be 4 exams during the semester. Unexcused absences from exams will be given a zero score. Excused absences will be given only for documented emergencies, in which case you will receive a score for the exam that you missed that is the average of your other exams. Events such as vacations, exams associated with other classes, weddings, and work conflicts are *NOT* considered valid emergencies. If you miss an exam due to a medical or personal emergency, bring documentation (doctor's note, police report, etc) to either Dr Gurney or Dr Grimm immediately. The instructors will make a final determination of whether or not you will be excused for a missed exam. *Do not assume* you will automatically be excused from missed exams if you turn in a document.

Exams will cover material from the lectures, homework, and the textbook. The first three exams will *not be* comprehensive and will cover material we have covered in lectures since the previous exam. The final (fourth) exam will be during finals week and will be

partly comprehensive: approximately 60% of the questions on the final will be from material covered since the third exam, with the remaining questions from material covered previously. *Note that the final exam is on THURSDAY, MAY 2 and starts at 2:30 pm.* We cannot change the date or time of the final exam, so please make your end-of-semester travel plans accordingly.

Each exam during the semester is worth 100 points towards your final course grade. The final (cumulative) exam is worth 150 points. Hence, exams total 450 points.

Exams will be multiple choice with 25 questions worth 4 points each (the final will have 30 questions worth 5 points each). You will need to bring a number two pencil (and eraser) to the exam. Please DO NOT bring to the exam any electronic devices that can store information, including phones, calculators, iPods or other similar devices. Your brain, your ASU ID, and a pencil are all you will need. No course material may be used during the exam.

Because of time limits, you should arrive promptly to the exam. Students arriving more than 10 minutes late may not be allowed into the room, and *NO students will be allowed to enter the room after the first student has turned in their exam*.

Homework:
Most homework will come from the online textbook. There are two types of questions: "as-you-go" questions to evaluate your comprehension (from which you can check your answer) and graded questions at the end of each section. Half of the points your receive will be awarded for simply *completing* the as-you-go questions, and the other half for *correctly* answering the graded questions provided in each section of the text. In general, we ask that you answer only the multiple-choice questions; for some chapters, the instructors will assign only a portion of the questions to be answered. These announcements will be posted on Blackboard before the due dates for the readings. *Homework from the readings must be completed by the due date listed on the syllabus (NO exceptions).*

The instructors also may assign homework that is not in the textbook. Any additional homework will be announced in class and on blackboard. Homework assigned through Blackboard may not be turned in via email or as a hard-copy. *Homework will not be accepted after its due date and time (NO exceptions).* Collectively, the homework assignments are worth 100 points of your grade, so you would be wise to complete all of them.

Online Labs:
In addition to the questions associated with the SimUText chapters, your online textbook contains four labs that feature greater exploration of a topic. Each student is required to complete TWO of the four labs. The labs will each require about 3 hours to complete, and you can do them at any time, but they must be completed by the *deadlines listed on the syllabus (NO exceptions).* You may browse through all of the labs; however, you must choose one lab from labs 1 and 2, and one lab from labs 3 and 4.

Grading:
Course grades are based on a total of 750 total points (450 from exams, 100 from

homework, and 200 from online "labs"). We will use the following guaranteed grading scale: "A" if you score ≥90% (675 pts); "B" if you score ≥80% (600 pts); "C" if you score ≥70% (525 pts); "D" if you score ≥60% (450 pts); "E" if you score <60%.

The above values are an initial grade cut-off. Final cut-offs are dependent on exam averages, and the final curve will not be determined until all grades are in (after the last exam). We will determine "plus" and "minus" grades within each letter grade distribution according to point distributions. *Please DO NOT ASK for letter grades during the course.* They are NOT determined or assigned until after the final exam.

We want you to succeed in this class, and therefore we are providing four opportunities for extra credit. Extra credit may be turned in to the TAs via SafeAssign on Blackboard ONLY on exam days (including the final), BEFORE the start of the exam. The assignment is to find a *current* news or popular-press article that is related to a topic discussed in the class section leading up to the exam, and to write a one-page critique of that article that evaluates it in the context of the science you have learned. Additional instructions for these extra-credit critiques will be posted on blackboard. Each will be worth up to 10 points, for a total possible of 40 points.

Blackboard:
The course will use Blackboard for posting course information, assigning homework, discussing course content, and communicating online with the instructors. Blackboard works both as a course website and as an interactive forum. It is easy to navigate. Access Blackboard at http://my.asu.edu. *You are responsible for any materials or information posted on the site.*

All students pre-registered for the course have been enrolled and have been sent emails to their ASU email accounts. If you have not received an email, check to make sure that BIO 320 shows up on your Blackboard listing. Emails from Blackboard can only be sent to your ASU email; if you regularly use a different email account please set up your ASU email to forward to the account you check most regularly.

Log in to Blackboard every day (especially around homework assignment dates) to view Announcements for the course. The syllabus is posted under Course Information. You will be able to download lectures and related information under Course Materials, and to ask and answer questions in the Discussion boards. Your exam, homework, and lab scores will also be posted on Blackboard throughout the semester; however, at any given time they may not reflect your updated scores.

Code of Conduct:
You and your fellow students are expected to follow the code of conduct for Academic Integrity as established by Arizona State University: http://students.asu.edu/srr/code. Please keep in mind that cheating on exams, whether in lecture or in laboratory, damages you and the class as a whole. When one individual cheats to raise their grade dishonestly, all other students in the course lose. The cheater also ultimately loses, because they do not acquire the skills that they have avoided by this act. Academic dishonesty is not tolerated; the offender will automatically receive a grade of 'E', and we will file for sanctioning of that student by the College. Be especially aware that all assignments and exams are to be your own work, unless you are explicitly given permission to hand in work as a team.

As an extension of this policy, courteous behavior is expected in lecture and lab. Please do NOT talk in class (except when invited), do NOT walk in late, or walk out early (without letting us know in advance), do NOT read newspapers in class, and do NOT use your cell phones in class (including text-messaging). Laptop use is permitted only in the last 10 rows of the classroom, as it is disruptive to any students behind you (and yes, they will be reading your Facebook page). All of these activities distract your fellow students and also indicate that, although you may be there physically, you are not actually paying attention.

Academic dishonesty:
ASU has severe sanctions for cheating, plagiarizing, and any other form of dishonesty. Should homework be assigned, be aware it is to be your own work. In the "Student Academic Integrity Policy" manual, ASU defines "'Plagiarism" [as] using another's words, ideas, materials or work without properly acknowledging and documenting the source. Students are responsible for knowing the rules governing the use of another's work or materials and for acknowledging and documenting the source appropriately." You can find this definition at:
http://www.asu.edu/studentaffairs/studentlife/judicial/academic_integrity.htm#definitions

Disability: If you are learning, sensory or physically disabled and feel that you need special assistance in lecture, reading assignments or exams, please contact either Dr. Gurney or Dr. Grimm during the first week of the semester. All matters will be held in strictest confidence as the need determines.

This syllabus is issued for your convenience and does not constitute a contract. We reserve the right to make changes during the semester, depending on time constraints, interests and discussions. However, *the exam dates are firm*, so plan accordingly.

ECOLOGY **Spring 2013**

Month	Date	Lecture Topic	Reading	Reading HW/ Lab Due	Prof
January	8	What is ecology?/Life on Earth			KRG
	10	Climate / Biomes	Biogeography (4)		KRG
	15	Species abundance and diversity	Biogeography (1-2)		KRG
	17	Geographical ecology	Biogeography (2-3)	Biogeography	KRG
	22	Life on Land / Life in water	Physiological ecology (1-2), Biogeography (3)		KRG
	24	Temperature and water relations	Physiological ecology (3)		KRG
	29	Energy and nutrient relations	Physiological ecology (4)	Physiological ecology	KRG
	31	**Exam I**			
February	5	Evolution for ecology	Evolution for ecology	Evoluton for ecology	NBG
	7	Case studies: Current Research in Ecosystem Ecology	TBA	TBA	TAs
	12	Urban ecology case study	TBA	TBA	NBG
	12	Lab 1: How the Guppy Got Its Spots OR Lab 2: Patchy Prairies - *DUE*	Labs in SimUText	Lab 1 or Lab 2	
	14	Disease ecology	Disease ecology	Disease ecology	NBG
	19	Population dynamics	Population growth		KRG
	21	Population growth	Population growth	Population growth	KRG
	26	Life histories	Life histories	Life histories	KRG
	28	**Exam II**			

Month	Date	Lecture Topic	Reading	Reading HW/ Lab Due	Prof
March	5	Global ecology	Climate change		KRG
	7	Global ecology and global change	Climate change	Climate change	KRG
	19	Global ecology case study	TBA	TBA	KRG
	21	Landscape ecology	TBA	TBA	NBG
	26	Ecosystem ecology: primary production and respiration	Ecosystem ecology (1-2)		NBG
	28	Secondary production and energy flow	Ecosystem ecology (3-4)	Ecosystem ecology	NBG
April	2	Decomposition	Decomposition	Decomp-osition	NBG
	4	**Exam III**			
	9	Nutrient cycling and retention	Nutrient cycling	Nutrient cycling	NBG
	11	Nutrient cycling and retention	Nutrient cycling		NBG
	16	Species Interactions: competition	Competition	Competition	NBG
	18	Species interactions: other	Predation, herbivory, and parasitism	Predation, herbivory, and parasitism	NBG
	23	Disturbance and succession	Community dynamics		NBG
	25	Stability	Community dynamics	Community dynamics	NBG
	25	Lab 3: Liebig's Barrel and Limiting Nutrients OR Lab 4: Barnacle Zone - *DUE*	Labs in SimUText	Lab 3 or Lab 4	
	30	Review session - open Q&A			All
May	**2**	**Final exam - 2:30 pm**			