

Biology 344, Introductory Ecology

Fall 2020

Instructor: Dr. Benjamin D. Duval, benjamin.duval@nmt.edu

319 Jones Annex, 835-5820 (office)

Course times: Monday, Wednesday, Friday 13:20 – 14:10

Office Hours: Tuesday 11:00 to noon, Thursday 11:00-noon

(preferably by appointment)

Textbook: Ecology: Evolution, Application, Integration (2018) 2nd Edition:

<https://www.amazon.com/Ecology-Application-Integration-David-Krohne/dp/0190638885>

Other reading from the primary literature will be assigned and available electronically

Description:

Ecology builds from the Introductory Biology courses and takes an evolutionary view of the distribution and abundance of organisms, and how they interact with each other. The “environment” in ecology encompasses the entirety of the physical, chemical and biological features and forces that an organism may encounter. We will also learn about higher levels of biotic organization such as population and community dynamics. **Specific topics and themes include** answering questions about what limits organismal function within their environment; life history traits; inter and intra-species competition; predation & population dynamics; decomposition; symbiosis; community ecology; the ecosystem concept. Lastly, given that the Earth is undergoing unprecedented climate disturbance due to human activity, we will discuss ALL of the above topics in the context of global change.

Courtesy Policies:

To gain respect, you must show respect. I have high expectations that the utmost courtesy and respect will be given to your fellow students and to me. Part of those expectations are that you *will arrive to ZOOM on time*. Class will begin at

13:20. Cell phones and electronic devices will be silenced and hidden (that means you can't see them either) during class. I know there is a strong urge to "multi-task" during Zoom meetings, but PLEASE pay attention just like you would for an in-person course. I'm going to try and do this as synchronously as possible, i.e., give lectures during regular class time, but I hope you can be flexible and patient with me as we navigate this new educational landscape together.

Course Policies:

Late assignments will not be accepted. If you know in advance that you will miss an exam, I will gladly make arrangements for you to take a different exam, at a different time. If you are legitimately ill or have other reasonable excuses for missing an exam, I will accept documentation from appropriate sources to excuse and re-schedule your exam.

Disability Accommodations: The Biology Department is committed to protecting the rights of individuals with disabilities. Qualified individuals who require reasonable accommodations are invited to make their needs known to the Office of Counseling and Disability Services (OCDS) as soon as possible, and inform Dr. Duval of any accommodations. Your confidentiality will be honored and respected, but PLEASE inform Dr. Duval if accommodations are needed before the first exam so that he can make necessary arrangements.

Your Plan for Success: Checking in with your professor from time to time will help you track your progress and demonstrate that you are serious about doing well.

Your mental health is incredibly important for your success at New Mexico Tech. The University offers mental health and substance abuse counseling through the Office of Counseling and Disability Services, but you are also welcome to find a person you trust in the Biology Department if you just need to voice some concerns about this class, a different class, or life in general. Official services through NM Tech are confidential.

You have every right as a student to take complaints to the University administration. However, I sincerely hope that you voice your concerns to the person who is most immediately able to affect change, and in this course that would be me. Going over the head of those who are interacting with you most directly is

uncourteous and unlikely to result in the desired effect. Per your plan for success, come talk to me!

Changing policies

I put a lot of thought into my syllabi. However, I anticipate that at least some minor details will necessarily change, especially this semester. I reserve the right to do so, but guarantee I will give as much notice as possible.

Academic Honesty

New Mexico Tech's Academic Honesty Policy can be found starting on page 59 of the NMT catalog,

http://www.nmt.edu/images/stories/registrar/pdfs/2013-2014_UNDERGRADUATE_Catalog_FINAL.pdf

You are responsible for knowing, understanding, and following this policy, but if in doubt please ask. Assume that cheating and plagiarism will be reported to the Office of Academic Affairs. Assume that written assignments will be run through plagiarism software. Definitely assume that I have read a lot more than you, and I know how to use the World Wide Web of internets.

Grading

Exams = 45% (3 exams)

These will be "take-home" exams, where I assign a set of questions that you are expected to research over the course of a week. These will be open book, open note, open resource. The most important aspect is that you give credit to the sources you used to develop your response to my questions. More specific instructions will be given upon assignment.

Literature homework = 15%

Reading primary literature is difficult. I want to help you get better at it! We will have several assigned primary literature assignments throughout the semester. I will assign a paper on a Friday, and you will have 1 week to complete the reading and prepare to discuss the paper. Part of that preparation will be a short essay (~300 words), or written answers to questions I will give to direct the reading. The

goal of these assignments is to help you *understand how to read the primary literature* to gain the knowledge you need from the paper.

Participation “in class” = 20%

The “traditional” part is your chance to show me that you’ve been reading. I reserve the right to call on students randomly as well. Definitely NOT as a punishment, or to embarrass anyone, but to find out what you know!

Review paper = 20%

You have a paper due on November 9. This will be a unique ecological topic of your choosing, that will need to be approved by Dr. Duval by October 12. I’m happy to discuss any ideas you have in office hours or by appointment, but please feel free to explore anything that is of interest to you (i.e., why did you sign up for Ecology? What did you hope to learn that we might not cover in class?). The earlier I know what topic you will delve into, the better the chance I can assist you in finding good resources.

Exam Schedule:

Assigned September 21, due September 28

Assigned October 26 due November 2

Assigned November 23 due November 30

Tentative Lecture Schedule is in an .xlsx file on Canvas in the folder ‘class overview’

Grading Scale

A	93 and above
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	below 60