

Biology 112, General Biology II

Spring 2020

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

319 Jones Annex, 835-5820 (office)

Office Hours: Monday 11-noon; Wednesday 11:00-noon

**preferentially by appointment*

Textbook: Sadava et al. "Life: the science of biology Volume 2" or Chapters ≥ 21

Description:

This is the second course in the Biology Department's introduction to Biology. We will cover concepts in biology beyond the cell level, with focus on organization from individual organisms to population and communities. A strong focus on the mechanisms of biological evolution will be a common thread throughout the course.

Topics:

Patterns and process of evolution; origins of biological diversity; form and function of microbial, plant and animal life; introduction to genetics at species and population levels; introduction to ecological interactions

Courtesy Policies:

Attendance is mandatory, absences will be noted and deducted from your participation grade. 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 on time* and ready to learn at 10:00am. *Cell phones and electronic devices will be silenced and hidden* (that means you can't see them either) during class. Do not come to class sick, but let me know via email or phone message that you were out for that reason. I reserve the right to request documentation from a medical professional for absences due to illness.

Course Policies*:

Grades are based on participation "checks", homework assignments and exams. Late homework **will not** be accepted. All homework will be submitted as a **hard copy unless otherwise stated**. If you know in advance that you will miss an exam, I will gladly make arrangements for you to take a different exam, BEFORE the scheduled exam. 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. Individuals requiring 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. PLEASE inform Dr. Duval if accommodations are needed before the first exam so that he can make necessary arrangements. Also, if you need assistance in contacting OCDS, I have a great relationship with that office and will gladly help you do so.

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

Your *mental and physical health* is 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. But, please come talk to me first!

*I anticipate that at least some minor details will necessarily change. I reserve the right to do so, but guarantee I will give as much notice as possible.

Academic Honesty

You are responsible for adhering to New Mexico Tech's Academic Honesty Policy, found starting on page 59 of the NMT catalog:

http://www.nmt.edu/images/stories/registrar/pdfs/2013-2014_UNDERGRADUATE_Catalog_FINAL.pdf (Links to an external site.)

Any behavior/actions suggestive of cheating or academic dishonesty may lead to failure of the course.

Quantitative Assessment (750 total points)

Exams

450 (3 exams 150 pts each)

You will be tested on material through the last lecture prior to the exam. Questions will come from the assigned reading, lecture, homework, and class discussions. Exam 1 will be all "new" material but Exams 2 and 3 will have ~10% of the material as cumulative (from previous sections of the course). There is not a "final" exam, rather a 3rd exam that will draw on more cumulative material that you will take the last week of classes (this will still be a 1-hour exam). We will have student-generated study guides to supplement your notes that will be available on Canvas.

Homework

100 (5 HW, 20 pts each)

Homework is to engage you with the lecture material in ways that are difficult to do with a large class during our lecture time. Homework will be one of the following: questions from the reading, brief writing assignments, notecard assignments or challenges to you related to primary literature searching. Several in-class group assignments will be counted as homework.

Participation

200 (2, 50 pt assessments; 1 final 100 pt assessment)

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	60-69
F	= 59 and lower

Tentative Weekly Schedule

<i>Week of</i>	<i>Topic(s)</i>	<i>Assignments</i>	<i>Exams</i>
January 13	Intro to genetics & evolution		
January 20 (no class Monday; MLK Day)	Sexual selection, evolutionary constraints	HW 1 (due Jan. 22)	
January 27	Speciation, gene/genome evolution		
February 3	Are Humans Still Evolving?		
February 10	Intro to molecular genetics	HW 2 (due Feb. 12)	
February 17	Early Earth Evolution		Exam I (Feb. 21)
February 24	Intro to microbial diversity		
March 2	Microbes in the	HW 3 (due Mar. 4)	

environment & viruses

March 9

March 16

SPRING BREAK

March 23

HW 4 (due Mar. 25)

**EXAM 2
(Mar. 27)**

March 30

April 6

HW 5 (due Apr. 8)

April 13

April 20

April 29 (last class)

EXAM 3 (Apr 29)

Other Important Dates for Spring 2020:

January 20: NO CLASS, Dr. Martin Luther King Day

January 21: Last day to add classes

January 24: NO CLASS, Duval EIB

January 31: Last day to drop classes

March 16-20: SPRING BREAK

April 1: Grade Option Deadline (grade vs. P/F)

April 10: NO CLASS, academic holiday

April 30 – May 5: FINALS Week