Biology 1110: Biology for non-majors

UNM Valencia Campus

Semester: Spring

Year: 2022

CRN #: 56316 section 501. Mondays and Wednesdays, 9:00-10:15 in A140.

Credits: 3 credit hours

Course Description: This course is an overview of biological principles important for the non-major in today's world. Ecological, evolutionary, and molecular topics will be discussed. *Credit is not applicable toward a biology major or minor.*

Instructor: Dr. Ben Flicker

Contact Information: My office is H100B. My phone number on campus is 505-925-8726. My email address is benflicker@unm.edu. Email is the best way to contact me, aside from immediately before and after class and my office hours.

Student Drop-in Hours: These are times when I will be available in my office for student questions or other issues. Mondays 10:30-12:00 & 1:00-2:30, Tuesdays 10:30-12:00, Wednesdays 12:00-2:00, Thursdays 12:00-1:30, or by appointment.

Course Book: Clark, M.A., J.C. Choi, & M. Douglas. Biology 2e (2020). Open Stax. **Required**. This is freely available as an ebook via the publisher website: openstax.org. You may also acquire a printed book for a charge, though that is optional.

Student Learning Objectives:

1.) Students will be able to explain the value of the scientific method as a means for understanding the natural world and for formulating testable predictions (Chapter 1).

2.) Students will be able to explain how chemical and physical properties apply to biological processes at the cellular level (Chapters 4,8,10,11)

3.) Students will demonstrate knowledge of basic concepts and mechanisms of cell biology (chapter 4).

4.) Students will demonstrate the understand that all organisms share properties of life as a consequence of their common ancestry (Chapter 25).

5.) Students will understand the fundamental processes of molecular biology (Chapter 3).

6.) Students will understand the mechanisms of evolution including natural selection, genetic drift and mutations (chapters 18 & 20).

7.) Students will understand the methods of inferring phylogenetic relationships and the basis for biological classification (chapters 18 & 25).

8.) Students will recognize the value of biological diversity, conservation of species, and the complexity of ecosystems (Chapter 44).

Course Webpage: Course materials will be posted on the course website (**https://learn.unm.edu**). This includes the syllabus, all assignments, grades, announcements, and links to email the instructor and other students in the course. You are responsible for all announcements that may be posted on the course page, so please check regularly. All homework assignment instructions, templates, and submissions, will be found on the course website.

Attendance: Students are responsible for getting information presented in any class missed. If you need to stay home for whatever reason, please do so. Zoom links will be available for all class periods, so if able, please attend that way to not miss out on class participation.

Syllabus Language: UNM Administrative Mandate on Required Vaccinations

UNM requires COVID-19 vaccination and a booster for all students, faculty, and staff, or an approved exemption (**see:** UNM Administrative Mandate on Required Vaccinations). Proof of vaccination and booster, or a medical, religious, or online remote exemption, must be uploaded to the UNM vaccination verification site. Failure to provide this proof may result in a registration hold and/or disenrollment for students and disciplinary action for UNM employees.

Booster Requirement: Individuals who received their second dose of a Pfizer or Moderna vaccine on or before June 15, 2021, or their single dose of a Johnson & Johnson vaccine on or before October 15, 2021, *must provide documentation of receipt of a booster dose no later than January 17, 2022*.

Individuals who received their second dose of a Pfizer or Moderna vaccine after June 15, 2021 or who received their single dose of Johnson & Johnson after November 15, 2021 *must provide documentation of receipt of a booster within four weeks of eligibility*, according to the criteria provided by the FDA (6 months after completing an initial two-dose Moderna vaccine, 5 months after completing the Pfizer sequence, and 2 months after receiving a one-dose Johnson and Johnson vaccine).

Exemptions: Individuals who cannot yet obtain a booster due to illness should request a medical, religious, or online remote exemption (which may have an end date) and upload this to the vaccination verification site.

Medical and religious exemptions validated in Fall 2021 (see your email confirmation) are also valid for Spring 2022 *unless an end date was specified in the granting of a limited medical exemption*. Students must apply for a remote online exemption every semester.

Syllabus Language: UNM Requirement on Masking in Indoor Spaces

All students, staff, and instructors are required to wear face masks in indoor classes, labs, studios and meetings on UNM campuses, see the masking requirement. Students who do not wear a mask indoors on UNM campuses can expect to be asked to leave the classroom and to be dropped from a class if failure to wear a mask occurs more than once in that class. Students and employees who do not wear a mask in classrooms and other indoor public spaces on UNM campuses are subject to disciplinary actions. **Medical/health grade masks are the best protection against the omicron variant and these masks should be used, rather than cloth**.

Syllabus Language: COVID-19 Symptoms and Positive Test Results:

Please do not come to a UNM campus if you are experiencing symptoms of illness, or have received a positive COVID-19 test (even if you have no symptoms). Contact your instructors and let them know that you should not come to class due to symptoms or diagnosis. Students who need support

addressing a health or personal event or crisis can find it at the Lobo Respect Advocacy Center.

The instructor will try to have a few disposable masks available in the classroom on a first-come, first-served basis.

Withdrawal: If you drop the course after the drop deadline, you will receive a grade of 'W'.

Title IX: In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the department of Education (see pg 15 - **http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf**). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct, and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX coordinator at the Office of Equal Opportunity (**Oeo.unm.edu**) For more information on the campus policy regarding sexual misconduct, see: **https://policy.unm.edu/university-policies/2000/2740.html**

Students with disabilities: Qualified Students with disabilities should see me or the campus testing center as soon as possible so we can meet your needs suitably and quickly.

Quizzes: 90 of your 500 total points this semester will come from in-class quizzes. There will be 4 of these quizzes during the semester, each taking place on the class period before an exam. These quizzes will cover the same material as the following exam. They will be taken with your groups, with each group submitting one quiz. Each quiz will be worth 30 points, with your lowest quiz score being dropped.

Exams: 4 exams will be given. These will each be worth 75 points. Each exam will primarily cover material from the most recent unit of sections/chapters.

Class Participation: Class participation; both in whole-class discussions and group work are essential to this course. As such, 100 of your 500 points possible in the course will come from class participation. These points will be allotted based on: Regular attendance, being engaged in classwork, actively taking notes in class, and completion of group activities.

Course Grading Policy: Your grade in this class will be made up of the following:

100 points: Class participation

300 points: Exams (4 exams @ 75 points each)

90 points: Quizzes (3 quizzes @ 30 points each)

10 points: Meet Ben Assignment

=500 total points possible

- 100%=A+, 92-99=A, 90-91=A-, 89=B+, 82-88=B, 80-81=B-, 79=C+, 72-78=C, 70-71=C-, 69=D+, 62-68=D, 60-61=D-, <60=F.

Week	Subjects covered	Homework/ Quizzes
1/17/22	No Class: Martin Luther King Jr. Day	
1/19/22	Course Introduction, Characteristics of Life	
1/24/22	Scientific Method	
1/26/22	Plant molecular biology- photosynthesis	
1/31/22	Plant molecular biology- growth	Meet Ben
2/02/22	Plant cells	
2/07/22	The plant body	Quiz 1
2/09/22	Exam 1 Review	
2/14/22	Exam 1	
2/16/22	The plant life cycle	
2/21/22	Mitosis and Meiosis	
2/23/22	Flowers	
2/28/22	Seeds and Spores	
3/02/22	Fruits	

3/07/22 3/09/22	Exam 2 Review Exam 2	Quiz 2
3/14/22 3/16/22	**No Class: Spring Break** **No Class: Spring Break**	
3/21/22 3/23/22	Ecology and ecosystems Plants in their environment	
3/28/22 3/30/22	Plant modifications Land plant evolution part 1	
4/04/22 4/06/22	Land plant evolution part 2 Land plant evolution part 3	
4/11/22 4/13/22	Exam 3 Review Exam 3	Quiz 3
4/18/22 4/20/22	Plant Carbohydrates Plant proteins	
4/25/22 4/27/22	Plant propagation Plant secondary compounds	
5/02/22 5/04/22	Plant Fats Lecture Review	Quiz 4
5/11/2022	**Exam 4 (not cumulative)**	

***** Instructor reserves the right to alter course schedule as the semester progresses. Students will be given advance notice (at least 1 week) of any change in dates of homework assignments or exams.

Thank you for registering for Biology 110 at UNM-VC. I am very excited to be here to help you continue your education and achieve your goals.