SYLLABUS
Natural Science 1120-Life Science
Fall 2022

Instructor: Chuck Schick
Phone: 925-8600 (academic office, they take messages)
Email: cschick@unm.edu (email is always best) or MS Teams
Office Hours: Mon & Wed 3:00-4:00 pm Rm 111 Health Sciences
Class Times: Monday and Wednesday, 4:30 to 4:45 and Lab Monday 6 to 8 PM

SCHEDULE

WEEK	Week of	TOPICS
1	Aug 22	Class Introduction, Life on Earth overview. Scientific Method. Differences between models, theories and laws in Science.
2	Aug 29	Atoms, molecules and the basic building blocks. Observation Lab #1
3	Sept 5	Energy Flow in Cells. LAB #2 Laboratory -microbe scavenger Hunt
4	Sept 12	Cell Membrane and function Cell Structures and Their Functions. Lab #3 Membranes & diffusion
5	Sept 19	LAB #4 Microscope use. Photosynthesis and Cellular Respiration Test #1 Review
6	Sept 26	**Test #1 (most likely Wed 9/28)** Research project outline and references due (9/28) LAB #5 Pond critter identification
7	Oct 3	**ASSIGNMENT #1 CELL MODEL PRESENTATION** (due first class of week) Cellular Respiration Lab #6 Cell Respiration Lab
8	Oct 10	DNA and How Proteins are made Lab #7 To Be determined
9	Oct 17	DNA, Gene Expression Biotechnology **ASSIGNMENT #2: Cell Respiration Game Presentation to class**
10	Oct 24	RNA and how it works. How it differs from DNA Lab #8 DNA extraction LAB Test #2 Review
11	Oct 31	**Test #2, (10/31)** Cell Reproduction, Inheritance Lab #9 To be determined
12	Nov 7	Evolution and natural selection Principles: How organisms evolve and a quick review of the History of Life on Earth (Paleontology). Taxonomy: How we classify organisms Early Life on Earth. Anaerobic versus Aerobic. Lab #10 To be determined
13	Nov 14	**ASSIGNMENT 3: Plant/Animal Classification Game Presentation** Anatomy and Physiology: Skeletal, Circulatory and Nervous System Lab #11 Anatomy exercise for an elementary classroom (but it's fun for us too)
14	Nov 21	Anatomy and Physiology Continued: The Digestive system and Excretion System Immune Responses Lab #12 Pulse and Respiration Lab **Research Project due First class of the week**
15	Nov 28	**Research Paper Presentations to the Class** **Test #3 (Wednesday class of the week)** Lab #13 Take Home Lab

16	Dec 5	Clean up of any open topics Final Exam Review Wrap up. Lab Summary Review

PLEASE OBTAIN A PAIR OF SAFETY GLASSES OR GOGGLES FOR LAB. I have a box of common ones you can borrow but it is better to have your own.

Course Textbook: *Campbell: Essential Biology, 5th Ed? Simon, Reece, Dickey* ***(whatever edition the bookstore is currently selling)*** *Books are usually cheaper on AMAZON*

Assignments: There are three (3) assignments in the schedule. Each is designed to permit the student to explore other sources of information (that means not using the textbook) and prepare either a presentation or visual aid to be used in the classroom to enforce the material being presented. Each assignment is explained below:

Labs: I will have a handout for each lab. Also, I will post it on MS Teams for your review ahead of class. Lab time is more efficiently used when you take some time to review the lab beforehand.

#1 Cell Model- Use simple materials to prepare a labeled model of a cell (animal or plant) and present this model to the class. This model will be suitable for your use in your classroom (when you are a teacher). The model should be large enough to be seen by students in the classroom and have good proportions. The model will include at least two references for literature used during development. **YOUR TEXT IS NOT ONE OF THE REFERENCES.**
#2 Cellular Respiration Game. Design a for students that will provide instruction and reinforcement of information covered regarding cellular respiration. The Game must have varied outcomes and should include consequences for disruption of the process. Include references for your information. Game requires two references.
#3 Classification demonstration for your future Students- Taxonomy can be a difficult subject for most of us, yet we do it every day without thinking. You will prepare a group of common objects and develop a procedure and system for classifying them. You will present it to the class. The objective of your classification system is to design a presentation for your future students requires the use of a classification strategy. Your classification system must have at least three layers or levels.

RESEARCH PROJECT:
You will be assigned a topic via lottery by the instructor. Don't worry you can change it if APPROVED. The topics are based upon subjects presented in the textbook or they are driven by news or current events (such as influenza, Diets, food contamination, disease, etc.). You will draw a number that corresponds to a research paper subject. You will then be responsible for that topic and presenting a scientific discussion of your research to the class. **Research must include 5 "REAL" references**.

Make-up Tests:
No Make-up Exams. See Grading Policy below.
Grading Policy:
There are Three (3) Tests and a FINAL Examination for a grand total of four (4). These tests count for (all approximate) 60% of your grade. You may drop the lowest test score (Best 3 out of 4 Exams). The poster/paper will be 20% or your grade. The three (3) Assignments and labs will count for 20%. Poor attendance could result in YOU BEING DROPPED FROM THE CLASS.

COVID-19:

COVID-19 Health and Awareness. UNM is a mask friendly, but not a mask required, community. To be registered or employed at UNM, Students, faculty, and staff must all meet UNM's Administrative Mandate on Required COVID-19 vaccination. If you are experiencing COVID-19 symptoms, please do not come to class. If you have a positive COVID-19 test, please stay home for five days and

isolate yourself from others, per the Centers for Disease Control (CDC) guidelines. If you do need to stay home, please communicate with me at cschick@unm.edu. I can work with you to provide alternatives for course participation and completion. UNM faculty and staff know that these are challenging times. Please let us know that you need support so that we can connect you to the right resources and please be aware that UNM will publish information on websites and email about any changes to our public health status and community response.
Support:

> Student Health and Counseling (SHAC) at (505) 277-3136. If you are having active respiratory symptoms (e.g., fever, cough, sore throat, etc.) AND need testing for COVID-19; OR If you recently tested positive and may need oral treatment, call SHAC.
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> Lobo RESPECT Advocacy Center (505) 277-2911 can offer help with contacting faculty and managing challenges that impact your UNM experience.

Title IX:

[Note: UNM encourages all faculty and TAs to include a Title IX statement on the syllabus and reminds all faculty, TAs, and GAs that per university policy APPM 2740 they are mandatory reporters to the Title IX Coordinator at the Office of Equal Opportunity of reports of gender discrimination, including sexual harassment, sexual misconduct and sexual violence. Information about how to have a conversation with a student about reporting and what steps to take is available on the Title IX Coordinator page. Faculty may be interested in informational resources developed by a group of UNM faculty, Faculty SAFE.]

Accommodations: UNM is committed to providing equitable access to learning opportunities for students with documented disabilities. As your instructor, it is my objective to facilitate an inclusive classroom setting, in which students have full access and opportunity to participate. To engage in a confidential conversation about the process for requesting reasonable accommodations for this class and/or program, please contact Accessibility Resource Center at arcsrvs@unm.edu or by phone at 505-277-3506.

On the UNM Valencia Campus, the coordinator for accommodations is located in the guidance center. After you see them, they will confidentially, let me know what accommodations you will require.