Syllabus for Biology 102: The Living World

Spring 2021

Asynchronous Lecture

Instructors:

Dr. Althea A. Archer

Office: 267 Wick Science Building Email: althea.archer@stcloudstate.edu

Twitter: @aaarchmiller

Virtual Office Hours: By request

CONTACT ME: The best way to get ahold of me is by emailing me. I will always try to get back to emails within 48 hours or 72 hours, if it is a weekend. I get a lot of emails, so please begin emails with "BIOL 102" so that we can prioritize your email.

The schedules and policies associated with this course may be subject to revision or change as a consequence of changing circumstances or events. Reasonable notification will be provided to students prior to any major changes in course policies or procedures.

Course Description

During this course, students will learn about all life on Earth, including plants, animals, and microorganisms. We will study interactions between humans and the planet, as well as dynamic changes on Earth and how they impact life. This course will cover how life has changed over geologic time, and the evolutionary processes that determine new species and relationships among organisms.

Learning Outcomes

By the end of this course, students should be able to:

- 1. distinguish between deductive and inductive reasoning and explain the scientific method
- 2. describe different types of ecosystems and niches
- 3. explain how evolution occurs' and provide examples of evolutionary relationships among organisms
- 4. list homologous structures that humans share with different animals
- 5. interpret an evolutionary phylogeny
- 6. gain understanding of how the changing planet impacts the biosphere

Required Textbooks

- Edward O. Wilson, Diversity of Life, (1992). Publisher: Harvard University Press.
- Neil Shubin, Your Inner Fish (2009). Publisher: Random House.
- SimUText Online textbook. Must purchase and download software to complete the labs. Link provided on D2L

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES: SCSU is an affirmative action, equal opportunity employer and educator. We are committed to a policy of nondiscrimination in employment and education opportunity and work to provide reasonable accommodations for all persons with disabilities. Accommodations are provided on an individualized, as-needed basis, determined through appropriate documentation of need. Please contact Student Accessibility Services (SAS), sas@stcloudstate.edu or 320-308-4080, Centennial Hall 202, to meet and discuss reasonable and appropriate accommodations.

RESPECT FOR DIVERSITY: It is our intent that students from diverse backgrounds and perspectives be well-served by this course, and that the diversity that students bring to this class be viewed as a resource. Please let us know ways to improve the effectiveness of the course for you, personally, or for other students or student groups. As a student in this class, you are required to treat other members of the class with respect and kindness. Diverse perspectives are welcome and disagreeing is fine. However, disrespectful, rude, or exclusive behavior will not be tolerated.

Grades

Item	Dates	Details	points	%
Labs	Mondays	4 points each	16	16%
Video Reflections	Wednesdays	4 points each	32	32%
Reading Quizzes	Fridays	5 points each	40	40%
Final Exam		12 points	12%	
Total			1000	100%

Percentage	Grade
≥ 99	A+
90-98.9	A
89-89.9	B+
80-88.9	В
79-79.9	C+
70-78.9	$^{\mathrm{C}}$
69-69.9	D+
60-68.9	D
< 60	F

LABS will be include three simulated labs via SimUText, an online textbook and one lab that will be conducted on D2L. Each lab is worth 4 points, for a total of 16% of your final grade.

VIDEO REFLECTIONS are 2-3 sentence reflections that you will write in response to watching videos on D2L. These videos will show scientific case studies that relate to course material. Each reflection must include 2-3 complete sentences that you write in your own words. Each sentence should start with one of our starter phrases, which are listed below. You will be graded on your grammar and punctuation and on your ability to show that you watched the video (specific details, etc).

Starter phrases that you should use are:

- I was surprised by ...
- I found it interesting that ...
- I wonder why ...
- It's really cool that ...
- $\bullet~$ I am disturbed by \dots
- I want to know more about ...
- The science behind that seems ...
- I saw that before when ...
- I did not want to know that ...

READING QUIZZES will be a series of quizzes on D2L that correspond with readings and video lectures. These quizzes are all open-book/open-note and are due at 10:00 pm each Friday (see the schedule for reading assignments). You do NOT have to wait until the due date to take these quizzes, but can take them at any point after they are posted. You will be given one week for each quiz. You will have as much time as you need to complete the Quizzes, and you will receive your score as soon as the quiz is over. You must take the quizzes via D2L. Each quiz is worth 5 points, for a total of 40% of your final grade.

THE FINAL EXAM will be comprised of multiple choice questions and will be conducted via D2L. It will be cumulative and cover the entire class' material. It is worth 12% of your final grade.

Academic Integrity

St. Cloud State University has university-wide policies about academic integrity, and all students are responsible for being familiar with and adhering to them. These policies are in place to protect students, first and foremost.

As a student at St. Cloud State University and as a student in this class, you are expected to fully and properly acknowledge the work of others. Every instance of plagiarism will be reported, as per the policies of SCSU, but please do not hesitate to ask us in advance if you think something might be questionable or if you are unsure about what is considered to be plagiarism. We are happy to help, as long as you inquire in advance!

Academic misconduct includes but is not limited to:

- cheating: using a resource other than one's own work to answer questions;
- plagiarism: misrepresenting another's ideas as one's own or not giving credit to the creator of a work;
- falsification: submitting falsified or fabricated information;
- facilitating others' violations: knowingly permitting or facilitating the dishonesty of others;
- impeding: placing barriers in the way of others' academic pursuits'

CONDENSED CLASS SCHEDULE: This is a full-semester, 3-credit course that is condensed into 9 weeks. That means that this class will be very fast-paced, and you will need to keep up on the readings to succeed in this class! I will be emailing you with reminders, but we do not meet as a class over Zoom or in person. You will be responsible for making time to read, watch videos, and complete labs in your own time.

Course Schedule (version dated February 25, 2021)

Monday	TUESDAY	WEDNESDAY	Thursday	FRIDAY
Jan 11th	12th	13th	14th	15th
No labs this week	Introduction to		Life on Earth	
	Biology		Ch 25.1-25.2	
	Ch 1.1-1.4			
18th	19th	20th	21st	22nd
Connect Ch 1&25	Evidence for		Microevolution	
Due	Evolution		Ch 20.1-20.2	
No labs this week	Ch 21.1-21.6			
25th	26th	27th	28th	29th
Connect Ch 20&21	Natural		Macroevolution	
Due	Selection		Ch 22.1-22.7	
	Ch 20.3-20.7			
Feb 1st	2nd	3rd	4th	5th
Connect Ch 22&23	Phylogeny		Exam 1	Introductory
Due	Ch 23.1-23.3			Paragraph Due
8th	9th	10th	11th	12th
	Viruses		Prokaryotes	Evaluating News
	Ch 26.1		Ch 27.1, 27.5	Assignment Due
15th	16th	17th	18th	19th
	Endosymbiosis		Protists	Connect Ch 26&27
	Ch 28.1-28.2		Ch 28.3-28.8	Due
				Primary Sources
				Due
22nd	23rd	24th	25th	26th
Connect Ch 28	Fungi		Fungi	Citing Sources Due
Due	Ch 31.1-31.4		Ch 31.5-31.9	
Mar 1st	2nd	3rd	4th	5th
Connect Ch 31	Exam 2		Intro to Animals	Paraphrasing
Due			Ch 32.1-32.3	Sources Due
8th	9th	10th	11th	12th
Spring Break	Spring Break	Spring Break	Spring Break	Spring Break
15th	16th	17th	18th	19th
	Parazoa		Lophotrochozoa	Hypothesis Testing
	Ch 32.4-32.5		Ch 33.1-33.7	Due

Monday	TUESDAY	Wednesday	Thursday	FRIDAY
22nd	23rd	24th	25th	26th
Connect Ch 32	Ecdysozoa		Deuterostomes	Figures and Tables
Due	Ch 33.8-33.9		Ch 34.1	Due
29th	30th	31st	Apr 1st	2nd
Connect Ch 33	Chordates		Amniotes	Predator-Prey
Due	Ch 34.2-34.6		Ch 34.7-34.10	Selfie Due
5th	6th	7th	8th	9th
Connect Ch 34	Exam 3		Plant Evolution	
Due			Ch 29.1	
12th	13th	14th	15th	16th
No labs this week	no class!		Bryophyta and	
			Monilophyta	
			Ch 29.2-29.5	
19th	20th	21st	22nd	23rd
Connect Ch 29	Gymnosperms		Double	Predator-Prey
Due	Ch 30.1-30.2		Fertilization	Paper Due
			Ch 30.3-30.5	
26th	27th	28th	29th	30th
Connect Ch 30	Angiosperm		Angiosperm	
Due	Reproduction		Anatomy	
No labs this week	Ch 40.1-40.6		Ch 35.1-35.5	
May 3rd	4th	5th	6th	7th
Connect Ch 35&40			FINAL EXAM	
Due			9:55am -	
			12:10am	