



Syllabus for _Biol 1____ (class)

Course Information

Semester & Year: Fall 2020

Course ID & Section #: Biol-1-E9858 (049858)

Instructor's name: Ralph Reiner

Course units: 4

Instructor Contact Information

Office location or *Online: Online

Office hours: M, Tu, W, Th, F 12-1

Phone number: (707) 499-8619

Email address: ralph-reiner@redwoods.edu

Catalog Description

An introductory course in life-science dealing with basic biological concepts including molecular and cell biology, metabolism, heredity, evolution, ecology, natural history, and biodiversity.

Course Student Learning Outcomes *(from course outline of record)*

1. Apply the scientific method to critically evaluate observable phenomena
2. Describe attributes of life and how cells fulfill these characteristics
3. Relate the mechanisms of change to the production of biological diversity

Prerequisites/co-requisites/ recommended preparation

Accessibility

Students will have access to online course materials that comply with the Americans with Disabilities Act of 1990 (ADA), Section 508 of the Rehabilitation Act of 1973, and College of the Redwoods policies.

Students who discover access issues with this class should contact the instructor.

College of the Redwoods is also committed to making reasonable accommodations for qualified students with disabilities. If you have a disability or believe you might benefit from disability-related services and accommodations, please contact your instructor or [Disability Services and Programs for Students](#) (DSPS). Students may make requests for alternative media by contacting DSPS based on their campus location:

- Eureka: 707-476-4280, student services building, 1st floor
- Del Norte: 707-465-2324, main building near library
- Klamath-Trinity: 530-625-4821 Ext 103

During COVID19, approved accommodations for distance education classes will be emailed to the instructor by DSPS. In the case of face to face instruction, please present your written accommodation request to your instructor at least one week before the first test so that necessary arrangements can be made. Last-minute arrangements or post-test adjustments cannot usually be accommodated.

Registration is necessary in order to receive emergency alerts. Please go to <https://www.GetRave.com/login/Redwoods> and use the "Register" button on the top right portion of the registration page to create an account. During the registration process you can elect to add additional information, such as office phone, home phone, cell phone, and personal email. Please use your CR email address as your primary Registration Email. Your CR email address ends with "redwoods.edu."

This course is an introduction to Biology dealing with basic biological concepts including molecular and cell biology, metabolism, heredity, evolution, ecology, natural history, and biodiversity.

Structure of the Course:

Four semester hours of credit consisting of three (+) hours of lectures per week and one three-hour laboratory per week.

Textbooks:

Concepts of Biology: OpenStax College: free online text

<http://cnx.org/content/col11487/latest/>

Biology 1 Lab Manual by Jeff Hogue, (available free online in the Modules of Canvas)

Evaluations and Grading:

2 lecture midterm exams worth 100 points each = 200 points total

1 lecture final exam worth 100 points total

2 lab exams worth 50 points each = 100 points total

lab reports (10 points each) (lowest score dropped) worth 100 (percentage) points total

6 total quizzes (10 points each with the lowest score dropped) = 50 points total

2 group discussions worth 10 points each = 20 points total

The course grade will be determined by the percentage of the total points earned compared to the total points possible.

A = 93-100%; A- = 90-92%; B+ = 88-89%; B = 83-87%; B- = 80-82%;

C+ = 78-79%; C = 70-77%; D = 60-69%; F <60%

Lecture exams will be based on the information discussed in lecture and the reading and will consist mostly of essays plus some short answers, multiple choice, matching, and true and false questions.

Quizzes will be based on the lab information from the previous labs plus some lecture material and will be posted at the beginning of the day of the lab.

The lab exams will be based on information learned in the lab and will consist of “thought questions” relating to laboratory work, plotting of data and discussion of results (“what is the significance of the results”), and other related questions.

Labs: Lab reports will be completed for each lab and need to be emailed before the beginning of the next lab. The lab reports will contain recorded data, plotted data, questions to be answered, drawings and observations, etc, made during the lab. Each lab report is worth 10 points. **Lab reports turned in late will result in the loss of 1 point for each week the report is late. Very late lab reports will not be accepted at the end of the semester.**

Discussions: Each student must participate in two group discussions. The details of how the discussions work will be explained at the beginning of the semester.

All lecture and lab exams must be taken for credit in the course. Any missing lab reports and quizzes will be counted as a zero score. Contact the instructor in advance if there is a problem. (Cell phone: (707) 499-8619. If the instructor doesn't answer, be sure to leave your full name and number – spoken **slowly** – so the instructor can contact you.) **An unapproved missed exam or quiz will result in a zero for the missed work.**

Email: school: ralph-reiner@redwoods.edu home: rreiner99@gmail.com

Academic Integrity: All students are expected to turn in their own work. Any obvious copying of another person's work will be given a zero for that assignment.

Office Hours:

I will have two office hours each week. My office hours are Tu 12-1:00 pm and W 12-1:00 pm. However, I can be reached other times as well. You may email me through Canvas or directly through CR (ralph-reiner@redwoods.edu), you may text me (707-499-8619), or you may call me (same number as the text number). If you want to FaceTime or Skype, let me know and we can arrange that.

If you have a disability or believe you might benefit from disability related services and may need accommodations, please see me or contact Disabled Students Programs and Services. Contact DSPS for requests for alternative media.

Emergency Procedures

Please review the campus evacuation sites, including the closest site to this classroom (posted by the exit of each room) and access www.redwoods.edu/safety.asp for information on campus Emergency Procedures.

During an evacuation:

- Be aware of all marked exits from your area and building. Know the routes from your work area to the nearest exits.
- Once outside, move to the nearest evacuation point outside your building.
- Keep streets and walkways clear for emergency vehicles and personnel.
- Do not leave campus, unless it has been deemed safe by the Incident Commander or campus authorities. (Be aware that CR's lower parking lot and 101 frontage road are within the Tsunami Zone).

RAVE - College of the Redwoods has implemented an emergency alert system. Everyone is entered already to receive a message at their CR email address. In the event of an emergency on campus, you can also elect to receive an alert through your personal email, and/or phones at your home, office, and cell. This emergency alert system will be available to all students, staff, and other interested parties.

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Ralph Reiner

Text: Concepts of Biology: OpenStax College (free online Text)
<http://cnx.org/content/col11487/latest/>

Tentative Lecture Schedule

Date	Lecture	Chapter	
Mon Aug	24	What is Life; Viruses and Coronavirus	1
	26	Life and the Chemistry of Life	2
Mon	31	Chemistry of Life	
Sept	2	Chemistry of Life; Biological Molecules	2
Tues	8	Cellular Organization	2, 3
	10	Cellular Organization	3
Mon	14	Cell Dynamics	4
	16	Cell Dynamics; Energy and Metabolism	4
Mon	21	Cellular Respiration	4
	23	Cellular Respiration	4
Mon	28	Photosynthesis	5
	30	1st Lecture Exam (through 9/23)	
Mon Oct	5	DNA Structure	9
	7	Mitosis and the Cell Cycle	6
Mon	12	Mitosis and the Cell Cycle	6
	14	Meiosis and Sexual Reproduction	7
Mon	19	Transcription and Translation	9
	21	Mendelian Genetics	8
Mon	26	Mendelian Genetics	8
	28	Chromosomes and Genes	9
Mon Nov	2	Chromosomes and Genes	9
	4	2nd Lecture Exam (through 10/28)	
Tues	10	Human Genetics	10
	12	Darwin and Evolution	11
Mon	16	Evolution and Natural Selection	11
	18	Life on Earth and Human Evolution	12
Fall Break and Thanksgiving Holiday			
Mon	30	Diversity of Life: Viruses, Bacteria	13
Dec	2	Diversity of Life: Archaea, Protists	13
Mon	7	Diversity of Life: Fungi and Plants	14
	9	Diversity of Life: Animals	15

Final Exam: Wednesday Dec 16

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Text: Introduction to Biology Laboratory Manual

Tentative Lab Schedule

<u>Date</u>	<u>Lab Topic</u>	
Tu Aug 25		Lab # 1: Data Analysis and Presentation
Tu Sept 1		Lab # 2: Chemistry of Life
Wed 9	Q-1	Lab # 3: Microscope and Cells
Tu 15		Lab # 4: Cell Dynamics: Diffusion and Osmosis
Tu 22	Q-2	Lab # 6: Cellular Respiration (and Fermentation)
Tu 29		Lab # 11: DNA Structure and Function
Tu Oct 6		1st Lab Exam
Tu 13	Q-3	Lab # 7: Cell Division: Mitosis
Tu 20		Lab # 8: Cell Division: Meiosis
Tu 27	Q-4	Lab # 9: Genetics
Tu Nov 3		Lab # 10: Human Inheritance
Wed 11	Q-5	Lab # 14: Viruses, Bacteria, and Epidemiology
Tu 17		Lab # 13: Evolution and Natural Selection
Fall Break and Thanksgiving Holiday		
Tu Dec 1	Q-6	Review session for the 2 nd Lab Exam
Tu 8		2nd Lab Exam