

Syllabus for General Biology (BIOL-1), Fall 2023

Course Information

Semester and Year: Fall 2023

Course ID: BIOL-1-E6811-2023F/BIOL-1-E6812-2023F

Instructor's Name: Katie Terhaar (she/her)

Course Units: 4.0

Lecture, HU-112: T,TH: 8:20-9:45

Lab, SC108: T: 9:55-1:05 [E6811], TH: 9:55-1:05 [E68112]

Instructor Contact Information

Office Hours and Location: Online, by appointment

Email address: Katie-Terhaar@Redwoods.edu

Phone Number: *EMERGENCY USE ONLY!* (Text works best) (616) 502-0419

Class 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.

Note: *This course is designed for non-science majors and nursing/health occupation students. Not open to students who have completed or who are currently enrolled in BIOL-3.*

*****NOTE: There will be a required field trip for one of the labs. You will be responsible for your own transportation. We will be outdoors, so please plan accordingly.**

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 explain how cells fulfill these characteristics.
3. Relate the mechanisms of evolutionary change to the production of biological diversity.

Required Materials

Textbook: <https://openstax.org/books/concepts-biology/pages/1-introduction>
(Yep, its free!)

Lab thingies:

We will be drawing on several resources for our labs. This manual will comprise a large portion of the material we will cover. Keep an eye on Canvas, as other *REQUIRED* lab manual supplements may be posted.

Accessibility

Students will have access to 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

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.

A Note About Life

Yeesh, it's been a crazy few years. But here you are!! In your lane, hydrated, thriving, glowing! Just the fact you have signed up for this class, that you are taking on this extra can of stressful worms to either begin or continue your academic career is a huge accomplishment! Yay you!! Give yourself a pat on the back! This being said, life happens. I know we all know to stay home if we're not feeling well, but to me, this means both *mentally* or *physically*. Depression and anxiety are at all-time highs among young adults (a demographic most of you fit). If you need a day to hang out in your PJs, cuddle with your cat, and binge watch Bob's Burgers while eating an entire tub of chocolate chip cookie dough Haagen-Dazs, yes, do it. If the ocean is flat, and the visibility *finally* is amazing in Trinidad harbor, and you need a day to go spearfishing because staring at a computer screen for *one more second* will make your brain turn to scrambled eggs, and this is how you self-care, go do it!...full disclosure, I have skipped classes to do both of these things (ha! Bet you didn't know your instructor is a human too!). Whatever your "I need a break" day looks like. Just don't forget to study up on what you missed when you're finished with your break (asking a trusted pal for notes is always a good plan). Please use this power wisely. Missing lectures can be easily caught up on by studying the material posted on Canvas (although you will be missing some fun activities!), but missing labs are much more difficult to make up (so if you do need a break day, try to do it on a lecture day).

Seriously though, I don't know what your life beyond school is like, or what challenges you may be facing. As your instructor, I am here to support you in your academic career in any way I can. If something interfering is with your learning, whether in class or outside of class, please reach out to me and I will try to help. This class is going to be a lot of work for most of you. The best thing you can do is

keep up with the lessons and ask questions when they arise. If you have read this far, email me a picture of a baby capybara, and you will get five points extra credit.

Don't forget, I am here to help you succeed.

Additional Support:

- Resources, tools, and trainings regarding health, mental health, wellness, basic needs and more designed for California community college students, faculty and staff are available on the California Community Colleges Health & Wellness website.
- Wellness Central is a free online health and wellness resource that is available 24/7 in your space at your pace.
- **Students seeking to request a counseling appointment for academic advising or general counseling can email counseling@redwoods.edu.**

Evaluation & Grading Policy

30 lecture quizzes	10 pts each	300 pts
15 lab quizzes	20 pts each	300 pts
1 lecture midterm	100 pts	100 pts
1 lecture final	200 pts	200 pts
Group Project	100 pts	100 pts
TOTAL		1000 pts

Grading Scale

< 60%	60-69%	70-76%	77-79%	80-82%	83-86%	87-89%	90-92%	93-100%
F	D	C	C+	B-	B	B+	A-	A

Important for Nursing Program Students:

- The CR Nursing Program's "Repeatability Rule": Students must earn a cumulative 2.5 GPA in BIOL-2, BIOL-6, and BIOL-7 in order to apply to the CR nursing program. If you pass these classes with C's, you will not earn a 2.5 GPA. Additionally, if you pass a class with a C, you cannot retake it at CR to improve your grade. The only way you can retake a class at CR is if you fail it (with a D or F). Keep this in mind when deciding whether or not to drop one of these 3 biology courses.
- The prerequisites for BIOL-7 (Human Physiology) include: BIOL-6 and CHEM-2 (or 1A). You can't register for BIOL-7 unless you've taken AND PASSED the prerequisites. If you think this might affect you, please plan ahead.
- Before you can register for BIOL-2 (Microbiology), you must be taking, OR HAVE TAKEN, CHEM-2 or CHEM-1A.
- To register for CHEM-2, there are no math prerequisites. To register for CHEM-1A, you need at least MATH-120.

- While CHEM-2 is required for the previous courses, CHEM-1A will also meet the requirement. However, you must have taken either high school chemistry OR CHEM-100 if you want to register for CHEM-1A.

Admissions deadlines & enrollment policies

Students who have experienced extenuating circumstances can complete & submit the **Excused Withdrawal Petition** to request an Excused Withdrawal (EW) grade instead of the current Withdrawal (W) or non-passing (D, F & NP) grades. The EW Petition is available from the Admissions and Records Forms Webpage. Supporting documentation is required.

Academic dishonesty (Yo. Just don't cheat)

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the College Catalog and on the College of the Redwoods website.

Note: Plagiarism is a form of cheating. Therefore, **all written work you turn in must be in YOUR OWN WORDS**. If you choose to use someone else's exact words, you must credit the source and put the words in quotations. *If you choose to plagiarize any work for this class, you will receive a zero on the assignment, even if you have permission to work on an assignment with other students from the class. This is particularly important for labs and exams.* (To sum this up-give credit where credit is due. You would be really unhappy if someone quoted your research or work without giving you credit...)

Disruptive behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; intentional misgendering; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process, a disruptive student may be temporarily removed from class. In addition, the student may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the College Catalog and on the College of the Redwoods website.

Inclusive Language in the Classroom

College of the Redwoods aspires to create a learning environment in which all people feel comfortable in contributing their perspectives to classroom discussions. It therefore encourages instructors and students to use language that is inclusive and respectful.

Students can have an alternate first name and pronouns appear in Canvas. Contact Admissions & Records to request a change to your preferred first name and pronoun. Your Preferred Name will only be listed in Canvas. It does not change your legal name in our records. See the Student Information Update form.

Canvas Information

If using Canvas, include navigation instructions, tech support information, what Canvas is used for, and your expectation for how regularly students should check Canvas for your class.

Log into Canvas at <https://redwoods.instructure.com>

Password is your 8 digit birth date

For tech help, email its@redwoods.edu or call 707-476-4160

Canvas Help for students: <https://www.redwoods.edu/online/Help-Student>

Canvas online orientation workshop: <https://www.redwoods.edu/online/Home/Student-Resources/Canvas-Resources>

Student Support Services

The following online resources are available to support your success as a student:

- CR-Online (Comprehensive information for online students)
- Library Articles & Databases
- Canvas help and tutorials
- Online Student Handbook
- Counseling offers assistance to students in need of professional counseling services such as crisis counseling.
- Learning Resource Center includes the following resources for students
- Academic Support Center for instructional support, tutoring, learning resources, and proctored exams. Includes the Math Lab & Drop-in Writing Center
- Library Services to promote information literacy and provide organized information resources.
- Multicultural & Diversity Center

Special programs are also available for eligible students include

- Extended Opportunity Programs & Services (EOPS) provides financial assistance, support and encouragement for eligible income disadvantaged students at all CR locations.
- The TRiO Student Success Program provides eligible students with a variety of services including trips to 4-year universities, career assessments, and peer mentoring. Students can apply for the program in Eureka or in Del Norte
- The Veteran's Resource Center supports and facilitates academic success for Active Duty Military, Veterans and Dependents attending CR through relational advising, mentorship, transitional assistance, and coordination of military and Veteran-specific resources.
- Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821

Emergency procedures / Everbridge

College of the Redwoods has implemented an emergency alert system called Everbridge. In the event of an emergency on campus you will receive an alert through your personal email and/or phones.

Registration is not necessary in order to receive emergency alerts. Check to make sure your contact information is up-to-date by logging into WebAdvisor <https://webadvisor.redwoods.edu> and selecting 'Students' then 'Academic Profile' then 'Current Information Update.' Please contact Public Safety at 707-476-4112 or security@redwoods.edu if you have any questions. For more information see the Redwoods Public Safety Page.

In an emergency that requires an evacuation of the building anywhere in the District:

- Be aware of all marked exits from your area and building
- 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 campus authorities.

Del Norte Campus Emergency Procedures

Please review the Crescent City campus emergency map for campus evacuation sites, including the closest site to this classroom (posted by the exit of each room). For more information, see the Redwoods Public Safety Page.

Eureka Campus Emergency Procedures

Please review the campus emergency map for evacuation sites, including the closest site to this classroom (posted by the exit of each room). For more information on Public Safety go to the CR Police Department- Public Safety It is the responsibility of College of the Redwoods to protect life and property from the effects of emergencies within its own jurisdiction.

In the event of an emergency:

1. Evaluate the impact the emergency has on your activity/operation and take appropriate action.
2. Dial 911, to notify local agency support such as law enforcement or fire services.
3. Notify Public Safety 707-476-4111 and inform them of the situation, with as much relevant information as possible.

4. Public Safety shall relay threat information, warnings, and alerts through the Everbridge emergency alert system, Public address system, and when possible, updates on the college website, to ensure the school community is notified.
5. Follow established procedures for the specific emergency as outlined in the College of the Redwoods Emergency Procedure Booklet, (evacuation to a safe zone, shelter in place, lockdown, assist others if possible, cooperate with First Responders, etc.).
6. If safe to do so, notify key administrators, departments, and personnel.
7. Do not leave campus, unless it is necessary to preserve life and/or has been deemed safe by the person in command.

Klamath Trinity Campus Emergency Procedures

Please review the responsibilities of, and procedures used by, the College of the Redwoods, Klamath- Trinity Instructional Site (KTIS) to communicate to faculty, staff, students and the general public during an emergency. It is the responsibility of College of the Redwoods, Klamath- Trinity Instructional Site (KTIS) to protect life and property from the effects of emergency situations within its own jurisdiction.

1. In the event of an emergency, communication shall be the responsibility of the district employees on scene.
 - a. Dial 911, to notify local agency support such as law enforcement or fire services.
 - b. If safe to do so, notify key administrators, departments, and personnel.
 - c. If safe to do so, personnel shall relay threat information, warnings, to ensure the school community is notified.
 - d. Contact 530-625-4821 to notify of situation.
 - e. Contact Hoopa Tribal Education Administration office 530-625-4413
 - f. Notify Public Safety 707-476-4111.
2. In the event of an emergency, the responsible district employee on scene will:
 - a. Follow established procedures for the specific emergency as outlined in the College of the Redwoods Emergency Procedure Booklet.
 - b. Lock all doors and turn off lights if in lockdown due to an active shooter or similar emergency.

- c. Close all window curtains.
- d. Get all inside to safe location Kitchen area is best internal location.
- e. If a police officer or higher official arrives, they will assume command.
- f. Wait until notice of all is clear before unlocking doors.
- g. If safe to do so, move to the nearest evacuation point outside building (Pooky's Park), directly behind the Hoopa Tribal Education Building.
- h. Do not leave site, unless it has been deemed safe by the person in command. Student Support Services (required for online classes)

Fall 2023 Dates

- August 18th: Last day to register for classes (day before the first class meeting)
- August 19th: Classes begin
- August 25th: Last day to add a class
- September 1st: Last day to drop without a "W" and receive a refund
- September 4th: Labor Day Holiday (District-wide closure)
- September 5th: Census Date (20% of class)
- October 26th: Last day to petition to graduate
- October 27th: Last day for student initiated withdrawal (62.5% of class)
- October 27th: Last day for faculty initiated withdrawal (62.5% of class)
- December 9th-15th: Final Examinations
- December 15th: Last day to file for P/NP option
- December 15th: Semester Ends
- December 22nd: Grades due
- January 5th: Grades available

Schedule (Tentative. Subject to change, cuz y'know...life..)

Week	Date	Theme	Lecture	Activity
1	Aug21- Aug25	Welcome and Intro to Biology	Class Overview, Scientific Method	Scientific Method Scenarios
			Characteristics of Life, Levels of Biological Organization	Living Organism Hierarchy Poster Project
2	Aug28- Sept1	Just a bit of Chemistry	Chemistry Concepts	Elemental Building Blocks
			Chemistry Concepts	Osmosis v. Diffusion
3	Sept4- Sept8	Cell Structure and Function	Cell Theory	Cell Discovery Timeline
			Prokaryotes vs. Eukaryotes, Organelles and their Functions	Pin the Nucleus on the Eukaryote
4	Sept11- Sept15	Cellular Processes	Cell Membrane Transport	Cell Membrane Transport Skit
			Cellular Respiration and Photosynthesis	Photosynthesis and Cellular Respiration Ultimate Showdown
5	Spet18- Sept22	Molecular Biology	DNA Structure and Replication	DNA Replication Modeling
			Transcription and Translation	T and T Art Walk
6	Sept25- Sept29	Mitosis and Meiosis	Mitosis	Mitosis Artistic Representation

			Meiosis	Meiosis Concept Map
7	Oct2- Oct6	Genetics	Mendelian Genetics and Punnet Squares	Superhero Punnet Square
			Chromosomal Basis of Inheritance	Marine Genetic Detective
8	Oct9- Oct13	Evolution	Darwinian Evolution	Evidence for Evolution Stations
			Natural Selection	An Evolutionary Journey
9	Oct16- Oct20	Biodiversity	MIDTERM EXAM (Wk 1- 7)	Phylogenetics and Dichotomous Key Lab
			Taxonomy and Phylogeny, iNaturalist Crash Course	Exploring Biodiversity with Technology (Outdoors)
10	Oct23- Oct27	Plants	Plant Structure and Function	Build a Plant Model
			Photosynthesis and Plant Growth	Hands on Planting: Exploring Photosynthesis
11	Oct30- Nov3	Animals	Animal Structure and Function	Animal Physiology: Survival Strategies
			Animal Behaviour	Ethogram: Brown Bears
12	Nov6- Nov10	Ecology	Ecosystems and Their Components, Energy Flow	Energy Web Activity or Trophic Transfer Tag

			and Nutrient Cycling	
			Population and Community Ecology	Ecosystem Research Snapshot (Computer Lab/Library)
13	Nov13-Nov17	Ecological Interactions	Symbiosis	Symbiosis Poetry Slam
			Predation and Competition	Ecoquest Showdown Boardgame
14	Nov20-Nov24	No Class!	FALL BREAK	
15	Nov27-Dec1	Human Impact	Pollution, Climate Change	Cradle To Grave Analysis
			Climate Change, Conservation	Climate Change and Mass Extinction
16	Dec4-Dec8	Diversity and Equity in STEM	Eurocentrism and Science, Diverse voices in STEM	Exploring Eurocentrism in Science
			Becoming a Better Ally	Class Wrap Up
Finals	Dec11-Dec15			