

Course Information

Semester & Year: Fall 2023

Course ID & Section #: BIOL-5-E6375

Instructor's name: Maria Morrow ("more-oh")

Day/Time of required meetings: Tuesdays and Thursdays, 1:15-4:25pm

Location: SC108

Course units: 4 (2hrs lecture, 6hrs lab)

Instructor Contact Information

Office location: SC 216D (upstairs Science building in the U of offices)

Office hours: Mondays, Tuesdays and Thursdays 11:30am-12:30pm

Phone number: 707-476-4472

Email address: Maria-Morrow@Redwoods.edu

Catalog Description

A comparative study of plant, fungal, and algal structure and function, with additional studies of developmental biology, phylogeny/systematics, plant ecology, and conservation biology.

Note: This course is intended for biology majors and is part of the STEM majors biology sequence.

Course Student Learning Outcomes

1. Recognize structural characteristics of plant, fungal, and algal groups, and use these characteristics to define their phylogenetic relationships.
2. Correlate plant form with function at cellular and whole organism levels.
3. Describe specific examples of how plants, fungi and algae interact at the population, community and ecosystem levels, and how the flow of energy and matter maintain ecosystem function.
4. Use the scientific method and inquiry-based laboratory tools to critically evaluate and explain observable phenomena.

Required Materials

All required materials are available for free on our Canvas site and via LibreTexts. A printed copy of the lab manual is available through the CR Bookstore. Physical copies of the textbook and photographic atlas must be printed or ordered through Libretexts.org.

- Textbook: [Botany by Ha, Morrow, and Algiers](#) (2021)
 - Lab Manual: [Botany Lab Manual by Morrow](#) (2020) – you can also print the individual labs from our Canvas page.
- Recommended: [A Photographic Atlas for Botany by Morrow](#) (2021) and colored pencils or pens.

Prerequisites/co-requisites/ recommended preparation

Recommended Prep: (CHEM-100 or CHEM-1A) and BIOL-3. Transfers to: UC and CSU.

Evaluation & Grading Policy

Grades in this course are weighted as follows:

- **40% Lab Practicals** - at the end of each of the three units, we'll have a lab practical. There will be stations set up all over the lab that you will work through answering questions about, as well as performing skill-related tasks.

We'll practice for these with our weekly lab quizzes. The first one will be worth 40 points, the second one is worth 60 points, and the final lab practical is worth 100 points. This way even if you struggle with the first lab practical, you can make it up with the final.

- **30% Lecture Assessments** - at the end of each of the three units, you'll have at least a week to complete a project-based assessment based on the lecture content. Because our lectures are online, these will be submitted on Canvas.
- **15% Lab Quizzes** - every Tuesday at the start of class, we'll have a quiz on the previous week's labs. These quizzes are low-stakes (a relatively small percent of your final grade) and are intended to give you practice for the unit lab practicals. These keep you up on studying the material and practicing your skills.
- **15% Lecture Notes** - because our lectures are online, I need a way to make sure you are engaging with the lecture content. For each lecture, you'll take detailed notes that you'll bring to lab each day. The lecture material will prepare you for the lab, so it is essential that you watch the lecture and take notes BEFORE the lab they are related to. Notes must be good quality for full points.

CR has a set policy for how course percentages convert to grades:

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

Educational Accessibility & Support

College of the Redwoods is committed to providing reasonable accommodations for qualified students who could benefit from additional educational support and services. You may qualify if you have a physical, mental, sensory, or intellectual condition which causes you to struggle academically, including but not limited to:

- Mental health conditions such as depression, anxiety, PTSD, bipolar disorder, and ADHD
- Common ailments such as arthritis, asthma, diabetes, autoimmune disorders, and diseases
- Temporary impairments such as a broken bone, recovery from significant surgery, or a pregnancy-related disability
- A learning disability (e.g., dyslexia, reading comprehension), intellectual disability, autism, or acquired brain injury
- Vision, hearing, or mobility challenges

Available services include extended test time, quiet testing environments, tutoring, counseling and advising, alternate formats of materials (e.g., audio books, E-texts), assistive technology, on-campus transportation, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact [Disability Services and Programs for Students \(DSPS\)](#). If you are unsure whether you qualify, please contact DSPS for a consultation: dsps@redwoods.edu.

- Eureka: 707-476-4280, Student Services Building, 1st floor
- Del Norte: 707-465-2324, Main Building, near the library
- Klamath-Trinity: 707-476-4280

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 [My CR Portal](#)

For help logging in to Canvas, visit [My CR Portal](#).

For help with Canvas once you're logged in, click on the Help icon on the left menu. For tech help, email its@redwoods.edu or call 707-476-4160

Canvas online orientation workshop: [Canvas Student Orientation Course \(instructure.com\)](#)

Setting Your Preferred Name in Canvas

Students have the ability to have an alternate first name and pronouns to 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. This does not change your legal name in our records. See the [Student Information Update form](#).

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](#)
- [Online Tutoring Resources](#)

[Counseling](#) offers assistance to students in need of professional counseling services such as crisis counseling.

Learning Resource Center includes the following resources for students

- [Library Services](#) to promote information literacy and provide organized information resources.
- [Multicultural & Diversity Center](#)
- [Academic Support Center](#) – offers tutoring and test proctoring for CR students.
- [Student Tech Help](#) – provides students with assistance around a variety of tech problem

Special programs are also available for eligible students include

- [Extended Opportunity Programs & Services \(EOPS\)](#) provides services to eligible income disadvantaged students including: textbook award, career academic and personal counseling, school supplies, transportation assistance, tutoring, laptop, calculator and textbook loans, priority registration, graduation cap and gown, workshops, and more!
- 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.
- [CalWORKS](#) – assists student parents with children under the age of 18, who are receiving cash assistance (TANF), to become self-sufficient.
- Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821

Student Code of Conduct

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](#).

Community College Student Health and Wellness

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.

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.

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.

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 (All Campuses Closed)

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)

November 11th: Veterans Day (All Campuses Closed)

November 20th-25th: Thanksgiving break (no classes)

November 22nd-24th: No Classes, all campuses closed

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 for BIOL-5

Week	Lectures (on Canvas)	Labs (T/Th in SC108)	Lab Quiz	Other
Unit 1: Building the Background, Ecology and Cells				
1	Introduction to Botany	Lab 1: Intro to Ecology (Tuesday)		Tuesday's lab includes an on-campus field trip
	Pollination & Dispersal	Lab 20: Angiosperms, Part I* (Thursday)	--	Bring flowers on Thursday
		<i>*I am altering this lab and will print it for you</i>		
2	Plant Cells & Tissues	Lab 2: From Prokaryotes to Eukaryotes	1	
		Lab 3: Cells and Tissues		
3	Reproduction	Lab 4: Multicellularity and Asexual Reproduction	2	
		Lab 12: Meiosis, Fertilization, and Life Cycles		
4	Photosynthesis	Lab 10: Photosynthesis and Plant Pigments	3	Open lab (TBD)
	Descendants of Primary Endosymbiosis	Lab 15: Red & Green Algae		
5	Check-in Discussion	Lab Practical 1		Lecture Assessment 1
		Lab 16: Evolution of the Embryophyta	--	Thursday's lab includes an on-campus field trip
Unit 2: Evolutionary Groups				

	Bryophytes	Lab 17: Bryophytes		
6	Seedless Vascular Plants	Lab 18: Seedless Vascular Plants	4	
7	Gymnosperms	Lab 19: Gymnosperms	5	Both labs this week will involve on-campus field trips where we will be outdoors for 2-3 hours.
	Angiosperms, Part I	Field Trip to Botanical Garden		
8	Fruits	Lab 21: Angiosperms, Part 2	6	
	Microfungi	Lab 13a: Microfungi		
9	Macrofungi	Lab 13b: Macrofungi	7	Bring mushrooms/fungi to lab!
		Surveying and Collecting Fungi		Thursday, we'll be collecting specimens on campus for DNA sequencing
				Open Lab (TBD)
10	Heterokonts	Lab 14: Heterokonts	8	Lecture Assessment 2
		Lab Practical 2		

Unit 3: Anatomy and Experimental Design

11	Experimental Design	New lab! I will print for you.	--	
	Water in Plants	Lab 5a: Roots and the Movement of Water, Part 1		
12	Roots	Lab 5b: Roots and the Movement of Water, Part 2	9	
	Shoots	Lab 6: Shoot Anatomy and Morphology		
13	Secondary Growth	Lab 9: Secondary Growth	10	On-campus field trip on Tuesday
	Leaves	Lab 7: Leaves		

Fall Break (Nov 20-25)

14	Plant Adaptations	Lab 8: Plant Adaptations	11	Lecture Assessment 3
	Symbiosis	Field Trip to Cal Poly Humboldt Greenhouse		Off-campus field trip on Thursday
15	Conservation	Review		Open Lab (TBD)
		Lab Practical 3		
Finals Week	No labs during finals week (for any classes)			Design a Plant Due