BIOL-3 Syllabus and Course Schedule

Syllabus for BIOL-3 (Fundamental Cell Biology)

Course Information:

- Semester & Year: Spring 2023
- Course ID & Section #: BIOL-3 E4950
- Instructor's name: Christopher Callahan
- Lecture: Online
- Lab Day/Time: Wednesday 2:30 pm to 5:40 pm
- Location: SC-104
- Number of units: 4.0

Instructor Contact Information

- Office location: SC-216A
- Office hours: Wednesday after lab or via Zoom by appointment
- Phone number: 707-465-2379
- Email address: christopher-callahan@redwoods.edu

Required Materials

- Textbook Title: Biology including Connect Access Card
- Edition: 13
- Author: Raven et al.
- ISBN: 978-1-264-40878-8

Catalog Description

A course intended for biology majors covering principles and applications of prokaryotic and eukaryotic cell structure and function, biological molecules,

homeostasis, cell reproduction and its controls, classical and molecular genetics, cell metabolism, and cellular communication.

Course Student Learning Outcomes

1. Identify and describe biological molecules and cell structures, and explain their functions.
2. Compare and contrast cellular processes and interactions between prokaryotes and eukaryotes (including metabolism, reproduction, communication, and genetics).
3. Explain how DNA replicates and transmits genetic information within organisms.
4. Apply the processes of scientific inquiry and experimental design to the study of biological concepts.

Evaluation & Grading Policy

Assignment		Points
Lecture Exams	3 exams (online) @ 100 points each	300
Lab Practical Exam	in-person finals week	100
Syllabus Quiz	must be completed by 1/24	5
Introduction Discussion	must be completed by 1/24	10
SmartBook Reading Quiz	15 quizzes @ 10 points each	150
Homework	various assignments	165
In-person Lab Activities	15 activities @ 10 points each	150
Virtual Lab Activities	12 @ 10 points each	120
	Total Points Attainable:	**1000**

If you receive 95-100% of total points you will receive an A; 90 to 94% earns an A-; 87-89% earns a B+; 84-86% earns a B; 80-83% earns a B-; 75-79 earns a C+; 70-74 earns a C; 60-69% earns a D; and 59% or below earns an F. There is no ‘curving’ or extra credit opportunities for missed work.

Prerequisites/co-requisites/ Recommended Preparation

CHEM-1A or CHEM-2 with a minimum grade of "C".

Student Feedback Policy

All work will be graded within two weeks of submission for evaluation. Grades will be posted on Canvas and will not be communicated through email. If you would like to discuss grades you'll have to set up a meeting with me.

Institutional Policies

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 (http://www.redwoods.edu/dsps)** (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.

Support for online learners during COVID-19

In response to COVID-19, College of the Redwoods moved the majority of its courses online to protect health and safety. As the faculty and students adjust to this change, clear communication about student needs will help everyone be successful. Please let me know about any specific challenges or technology limitations that might affect your participation in class. I want every student to thrive.

Admissions deadlines & enrollment policies

Spring 2023 Dates

- *Classes begin: 01/14/23*
- *Martin Luther King's Birthday (all campuses closed): 01/16/23*
- *Last day to add a class: 01/20/23*
- *Last day to drop without a W and receive a refund: 01/27/23*
- *Census date: 01/30/23 or 20% into class duration*
- *Last day to petition to file P/NP option: 02/10/23*
- *Lincoln's Birthday (all campuses closed): 02/17/23*
- *President's Day (all campuses closed): 02/20/23*
- *Last day to petition to graduate or apply for certificate: 03/02/23*
- *Spring Break (no classes): 03/13/23 – 03/18/23*
- *Last day for student-initiated W (no refund): 03/31/23*
- *Last day for faculty-initiated W (no refund): 03/31/23*
- *Final examinations: 05/06/23 – 05/12/23*
- *Commencement: 05/15/23*
- *Semester ends: 05/12/23*
- *Grades available for transcript release: approximately 05/26/23*

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

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 (https://redwoods.instructure.com/courses/15857/pages/student-code-of-conduct-and-disciplinary-procedures)**) 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 (https://www.redwoods.edu/catalog)** and on the **College of the Redwoods website (https://www.boarddocs.com/ca/redwoods/Board.nsf/Public?open&id=policies)** .

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; 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 (https://redwoods.instructure.com/courses/15857/pages/student-code-of-conduct-and-disciplinary-procedures)**) 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 (https://www.redwoods.edu/catalog)** and on the **College of the Redwoods website (https://www.boarddocs.com/ca/redwoods/Board.nsf/Public?open&id=policies)**

Policies for this Class

Class participation

Lecture and lab are intimately interrelated. The topics you learn about in lecture you see in lab, usually that very week. Lab lectures occur, but are usually short so you can spend as much time as possible with the lab activity. Most labs focus on a particular topic and contain two main types of activities: 1) study of microscope slides or observation of preserved specimens and/or models, to demonstrate form and function; and 2) laboratory experiments to reinforce topics discussed in the lecture portion of this course.

Lecture Exams: There are three lecture exams including the lecture final. Exams are not comprehensive and will only cover new material.

Lab Exam: There is one lab exam at the end of the semester. This exam will cover practical material learned in the lab portion of this class.

SmartBook Reading Quizzes: For each chapter assigned, you will complete the SmartBook Reading Quiz. These quizzes are taken on Connect Biology and are designed to test your reading comprehension as you make your way through the chapter.

Weekly Lab Activities: You will work with classmates to complete lab activities. Completed labs will be due the following lab period at the beginning of class.

Virtual Lab Activities: These lab activities will be conducted online in Connect Biology and are designed to prepare you for the hands-on lab activities.

Homeworks: Homeworks are designed to prepare you for the lecture exams and will be assigned prior to each exam. These will be a mix of activities, some using Connect Biology.

Attendance Policy

This is a hybrid class. All lecture material will be conducted online and as such you have the freedom to choose when you engage with course content, however, there are strict deadlines on when assignments will be due. Lab activities meet in-person on Wednesday 2:30pm in SC-104. You are expected and required to attend all in-person labs. This is not a self-paced course and you will have assignments due each week. You must complete assignments on time. No late assignments will be accepted and no extra credit opportunities will be given. In the event of Covid exposures, lab content will be shifted to online until it is safe to return to the classroom.

Academic Integrity and Honor Pledge

As a College of the Redwoods student enrolled in an online class you are expected to conduct yourself with integrity. Please review the **Academic Integrity (https://redwoods.instructure.com/courses/15857/pages/academic-integrity?module_item_id=699187)** page and then complete the **Syllabus Quiz ($CANVAS_OBJECT_REFERENCE$/quizzes/gbb9c559bfbdfbcfe0e0d803a96900cc9?module_item_id=g6dfafc729266a7c682d59ebef70150ce)** by Monday, January 23rd at midnight.

Information for this Class

Required textbook

You will need to purchase the Raven et al. Biology 13th edition textbook with Connect Access Card from McGraw Hill publishing. The bookstore has this book for purchase at 196.50, however you can purchase the book with Connect Access Card directly from McGraw Hill for 153 dollars. So you can save some money by buying it direct from the publisher. I will have links on how to do this in Canvas on the first day of class. So for now, please wait to purchase the textbook/Connect Access card so that you can save some money. There are no other materials to purchase for the course.

Preferred Name in Canvas

Students have the ability to have an alternate first name and pronouns to appear in Canvas. Contact **Admissions & Records (https://www.redwoods.edu/admissions/Forms)** 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 (https://www.redwoods.edu/Portals/28/A.R.Forms.Docs/Miscellaneous/Student%20Information%20Update.pdf)** .

Canvas Information

Please see **Online Orientation Letter (https://redwoods.instructure.com/courses/15857/pages/biol-3-online-orientation-letter)** for more information

- Log into Canvas at **https://redwoods.instructure.com (https://redwoods.instructure.com/)**
- Password is your 8 digit birth date
- For tech help, email **its@redwoods.edu (mailto:its@redwoods.edu)** or call 707-476-4160

Technology skills, requirements, and support

Please see **Online Orientation Letter (https://redwoods.instructure.com/courses/15857/pages/biol-3-online-orientation-letter)** for more information

- Tech equipment and skills are required for student success, and of equal importance as required textbooks and materials.
- Students can obtain a free **Office 365 license (https://www.redwoods.edu/Services/Office365)** (includes Word, Excel, PowerPoint and more) with a valid CR email.
- Before contacting Technical Support please visit the **Online Support Page (http://www.redwoods.edu/online/Help)** .
- For password issues with Canvas, Web Advisor or your mycr.redwoods.edu email, contact **its@redwoods.edu (mailto:its@redwoods.edu)** or call 707-476-4160 or 800-641-0400 ext. 4160 between 8:00 A.M. and 4:00 P.M., Monday through Friday.

Student Support Services

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

- **CR-Online (http://www.redwoods.edu/online)** (Comprehensive information for online students)
- **Library Articles & Databases (https://redwoods.libguides.com/az.php)**
- **Canvas help and tutorials (http://www.redwoods.edu/online/Canvas)**
- **Online Student Handbook (http://www.redwoods.edu/Portals/72/Documents/Students/CR-OnlineStudentHandbook.pdf)**

Counseling and Advising (http://www.redwoods.edu/counseling/) offers academic support and includes academic advising and educational planning

Learning Resource Center includes the following resources for students:

- **Academic Support Center** (http://www.redwoods.edu/asc) for instructional support, tutoring, and learning resources.
- **Library Services** (https://www.redwoods.edu/library) to promote information literacy and provide organized information resources.
- Multicultural & Diversity Center
- Math Lab & Drop-in Writing Center

Special programs are also available for eligible students include

  - **Extended Opportunity Programs & Services (EOPS)** (http://www.redwoods.edu/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** (https://www.redwoods.edu/trio/eureka) or in **Del Norte** (https://www.redwoods.edu/delnorte/TRiO)
  - The **Veteran's Resource Center** (https://www.redwoods.edu/vets) 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
- The **Honors Program** (https://www.redwoods.edu/Honors/) helps students succeed in transferring to a competitive four-year school.

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 (https://www.cccstudentmentalhealth.org/health-wellness-for-students/) .
- Wellness Central (https://ccconlineed.instructure.com/courses/1895?cf_id=2248) 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 (mailto:counseling@redwoods.edu) .

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 (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 (mailto:security@redwoods.edu)** if you have any questions. For more information see the **Redwoods Public Safety Page (https://www.redwoods.edu/publicsafety)** .

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.

Course Schedule

Each week new learning topics will be available in the course modules. Topics are arranged by lecture exam (5 topics per exam). Each week will begin on Tuesday and end the following Monday at midnight. This schedule is subject to change with fair notice.

Week	Begin Date Tuesday	End Date Monday	Online Lecture Topic	In-Person Lab Topic Meet on Wednesday
1	January 17, 2023	January 23, 2023	Topic 1: The Science of Biology Chapter 1	Online Orientation and Introduction to the Course Lab 1: Microscopy
2	January 24, 2023	January 30, 2023	Topic 2: The Nature of Molecules and Properties of Water	Lab 1: Microscopy continued Lab 2: Cells

			Chapter 2	
3	January 31, 2023	February 6, 2023	Topic 3: The Chemical Building Blocks of Life Chapter 3	Lab 3: Chemistry
4	February 7, 2023	February 13, 2023	Topic 4: Cell Structure and Function Chapters 4 & 5	Lab 4: Macromolecules
5	February 14, 2023	February 20, 2023	Topic 5: Energy and Metabolism Chapters 6 **Lecture Exam I (Online)**	Lab 5: Diffusion/Osmosis
6	February 21, 2023	February 27, 2023	Topic 6: Cell Energy Chapter 7	Lab 6: Enzymes
7	February 28, 2023	March 6, 2023	Topic 7: Photosynthesis Chapter 8	Lab 7: Cellular Respiration
8	March 7, 2023	March 13, 2023	Topic 8: Cell Communication and Cell Division Chapters 9 & 10	Lab 8: Photosynthesis
9	**March 14, 2023**	**March 20, 2023**	**Spring Break - No Class**	**Spring Break - No Class**
10	March 21, 2023	March 27, 2023	Topic 9: Sexual Reproduction and Meiosis	Lab 9: Cell Division and Cancer

			Chapter 11	Cancer Autopsy Video Exam Review
11	March 28, 2023	April 3, 2023	Topic 10: Patterns of Inheritance Chapter 12 **Lecture Exam II (online)**	Lab 10: Meiosis and Sexual Reproduction
12	April 4, 2023	April 10, 2023	Topic 11: The Chromosomal Basis of Inheritance, and Human Genetics Chapter 13	Lab 11: Mendelian Genetics
13	April 11, 2023	April 17, 2023	Topic 12: DNA: The Genetic Material Chapter 14	Lab 12: Human Genetics
14	April 18, 2023	April 24, 2023	Topic 13: Genes and How they Work; Control of Gene Expression Chapters 15 & 16	Lab 13: DNA Lab I
15	April 25, 2023	May 1, 2023	Topic 14: Genes Within Populations Chapter 20	Lab 14: DNA Lab II
16	May 2, 2023	May 8, 2023	Topic 15: The Evidence for Evolution Chapter 21	Lab 15: Evolution

17	May 9, 2023	May 12, 2023	***Final Lecture Exam (online)***	***Lab Exam (in-person)***