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Fall 2025

# BIOL 1 - General Biology with Lab

*Biology...because life is good!*



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## Course Information

Semester & Year: **Fall 2025**

Course ID & Section #number: **BIOL 1, E9320, E9321**

Instructor's name: **Karen Reiss, Jackie Patmore**

Day/Time of required meetings:

- **LECTURES T/Th 2:50-4:15pm**
- **LABS F 8:20-11:30am OR F 11:40-2:50pm**

Location:

- **LECTURES HUM 112**
- **LABS SCI 108**

Course units: **4**

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## Instructor Contact Information

Office location or Online: **Karen Reiss, SCI 216B; Jackie Patmore SCI 216H**

Office hours: **TBA**

Phone number: **Karen Reiss, 707-476-4220; Jackie Patmore, 707-476-4324**

Email address: [karen-reiss@redwoods.edu](mailto:karen-reiss@redwoods.edu) (<mailto:karen-reiss@redwoods.edu>); [Jaclyn-Patmore@redwoods.edu](mailto:Jaclyn-Patmore@redwoods.edu) (<mailto:Jaclyn-Patmore@redwoods.edu>) BUT SEE BELOW!

*Please use the messaging tool within your Canvas InBox to reach us by email. This way your message stays with other class related emails and doesn't get mixed in with all the junk in our regular campus emails.*



## Required Materials

**OpenStax Concepts of Biology.** <https://openstax.org/details/books/concepts-biology> (<https://openstax.org/details/books/concepts-biology>)

**BIOL 1 Lab Manual.** must be purchased at [CR Bookstore](https://bncvirtual.com/redwoods) (<https://bncvirtual.com/redwoods>) and brought to every lab



## 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.

- This course is **NOT FOR LIFE SCIENCE MAJORS** (e.g., biology, zoology, botany, wildlife, fisheries, etc.).
- This course is one of several GE options for **NON-SCIENCE MAJORS** which also include **BIOL 20** – Natural History, **BIOL 15** – Marine Biology and **ENVSC 10** – Intro to Environmental Science.
- This course is a prerequisite for all the **PRE-R.N. (REGISTERED-NURSING)** courses.





## Course Student Learning Outcomes

- Apply the scientific method to critically evaluate observable phenomena
- Describe attributes of life and explain how cells fulfill these characteristics
- Relate the mechanisms of evolutionary change to the production of biological diversity



## Course Calendar

Lecture	Lab <i>in Lab Manual</i>	Reading <i>in Textbook</i>
What Is Life and Where Did It Come From? What is Science?	Lab 1: Measurement & Data Analysis	1, Appendix C
Chemistry of Life Biomolecules	Lab 2: Chemistry of Life	2, Appendix A
The Cell Cell Membranes	Lab 3: Scopes and Cells	3
What Is Energy? Energy in Cells: Cellular Respiration	Lab 4: Diffusion and Osmosis	4
Energy in Cells: Photosynthesis <b>REVIEW</b>	Lab 5: Cellular Respiration	5
<b>1</b> DNA Structure and Replication	Lab 6: DNA	9.1-9.2

<b>Lecture</b>	<b>Lab in Lab Manual</b>	<b>Reading in Textbook</b>
DNA Transcription and Translation Mitosis and Meiosis	Lab 7: Mitosis and Meiosis	9.3-9.5 6,7
Mendelian Genetics Non-Mendelian Genetics	Lab 8: Simple Mendelian Genetics	8
What Evolution Looks Like Mechanisms of Evolution	Lab 9: Natural Selection	11.1, 11.3 11.2
How Allele Frequencies Change <b>REVIEW</b>	Lab 10: More Complicated Genetics	11.2
<b>Exam 2</b> Systematics	Lab 11: Systematics	12
<b>Veteran's Day Holiday</b> Microbes	Lab 12: Microbes and Epidemiology	Appendix B, 13.1-13.3,
Fungi Plants	Lab 13: Eukaryote Diversity	13.4 14
<b>Thanksgiving – November 25-29</b>		
Animal Bodies Animal Diversity - Invertebrates	Lab 14: Animal Bodies	16 15.1-15.5
Animal Diversity - Vertebrates Ecology	Field Trip!!	15.6 19



<b>Lecture</b>	<b>Lab in Lab Manual</b>	<b>Reading in Textbook</b>
<b>Final Exam</b> 50% last 5 weeks; 50% comprehensive		



## Evaluation & Grading Policy

### Point Breakdown

<b>Lab Assignments</b>	<i>due in the following week's lab</i>	14 x 20 (-1 lowest score)	260
<b>Online Quizzes</b>	<i>complete by Sunday midnight</i>	15 x 10 (-1 lowest scores)	140
Occasional HW	<i>due dates and points vary</i>	10 x 15	150
Midterm Exams	<i>not explicitly cumulative</i>	2 X 100	200
Final Exam	<i>50% comprehensive</i>	200	200
Participation	<i>be there, be aware, and care</i>	(-5 per unexcused absence)	50
		<b>TOTAL POSSIBLE</b>	<b>1000</b>

### 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

## Attendance

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You are expected to attend all lectures and labs and will lose 5 points for each missed class. Of course, life happens. Cars don't start, you get sick, etc., so communicate these events with your instructor ASAP and make a plan to makeup the lost work. If you do so promptly and earnestly you will not lose the points.

## Deadlines and Late Work

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Your completed labs are due in lecture on Tuesday of the week following the lab exercise. Your online quiz of the preceding week's material is due Sunday night at midnight.

I'll give you 5 bonus points at the end of the semester if you have no late work! If you must turn in something late know that:

- Labs, due Tuesday each week, are only accepted up until Friday.
- Late labs will incur a 5 pt penalty.
- Quizzes, due Sunday @ 11:59pm each week, will become unavailable Thursday @ 11:59pm.
- Late labs will incur a 2 point penalty.

Labs and quizzes combined are worth as much as your exams so timely attention to reviewing material and conscientiously completing your work will really pay off.

**Frequently asked question:** Why are you being so strict with due dates and not very accepting of late work? This seems harsh.

*In biology classes every lecture and lab builds on previous material. You need to know last week's material to have a chance at understanding this week's material. When students fall behind it usually results in an F, late term withdrawal, or instructor drop. This happens because once you are behind it is incredibly difficult to catch up. This is why we are so strict about both attendance and late work.*

## Exam Make-Ups

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Online quizzes are available for several days. It is up to you to find a good time within this time window that doesn't conflict with other aspects of your life. For exams, you **MUST** have a serious and verifiable excuse to miss a lecture exam and you will ideally contact an instructor before the exam begins.



**Contact** by leaving a message on email or phone voicemail.



- **Serious excuses include** emergency room visits, quarantine due to contagious infectious disease, and deaths in the family, and the like.
- **Verifiable means** you have a doctor's note, a police report, or some other form of evidence.



## Prerequisites / Co-requisites / Recommended Preparation

There are NO prerequisites or corequisites. We do not expect that you have any scientific background. However, we do expect you to show up and work hard and complete assignments in a timely manner. The better your time management and study skills are the better you'll do, and this is a great course to develop and practice time management and study skills!



## 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, or bipolar disorder
- 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
- Neurodevelopmental disorders such as a learning disability, intellectual disability, autism, acquired brain injury, or ADHD
- Vision, hearing, or mobility conditions

Available services include extended test time, quiet testing environments, academic assistance and tutoring through the [LIGHT Center](#) 

 <https://www.redwoods.edu/services/sass/light.php>), counseling and advising, alternate formats course materials (e.g. audio books or E-texts), assistive technology, learning disability assessments, approval for personal attendants, interpreters, priority registration, on-campus



transportation, adaptive physical education and living skills courses, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact [Student Accessibility Support Services \(SASS\)](#)  (<https://www.redwoods.edu/services/sass/index.php>).

If you are unsure whether you qualify, please contact SASS for a consultation: [SASS@redwoods.edu](mailto:SASS@redwoods.edu) (<mailto:SASS@redwoods.edu>).

## SASS office locations and phone numbers

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### Eureka campus

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- Phone: 707-476-4280,
- Locations: Student Services building, first floor SS113

### Del Norte campus

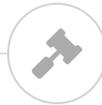
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- Phone: 707-465-2353
- Location: Main building, near the Library

### Klamath-Trinity campus

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- 707-476-4280



## Academic Integrity

### Truth matters! Cheating sucks!

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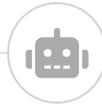
In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. Academic dishonesty of any kind will result in an instant F on the quiz/exam/assignment and a memo to the Dean and the Chief Student Services Officer. Disciplinary action will be taken if they already have your name on “the list” of past offenders. In other words, you get one warning. The Student Code of Conduct ([AP 5500](#)  (<http://www.boarddocs.com/ca/redwoods/Board.nsf/goto?open&id=ARKSTR7410A2>)) is worth reading. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the 2024-2025 College Catalog and CR Board and Administrative Policies.



...ple of common pitfalls:



- Many students don't realize that complicity...allowing or encouraging cheating...is as bad as being the one doing the cheating.
- Many students don't understand that using a Wikipedia or ChatGPT-type answer...even if cited...is plagiarism.
- Many students don't realize that we professors KNOW that companies like Chegg will allow you to pay for access to answers to questions in popular textbooks like your lab manual. Not only is this cheating, but their answers typically suck!



## AI Use Class Policy

Recent advancements in generative artificial intelligence (AI) have made large language models such as ChatGPT and Google's Bard widely available. However, overuse of these tools in this class can undermine your learning and curtail the development of your critical and creative thinking skills. In addition, AI outputs are often unreliable and frequently subject to bias. For these reasons, the policy of this class is that **AI cannot be used at any point in the completion of class assignments unless you are explicitly told, in writing, to use AI in the assignment.** Any or all of your assignment submissions and discussion posts may be screened by AI detection software, but the real penalty for AI misuse is that you will miss out on an opportunity to learn.



## 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. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the [2024-2025 College Catalog](https://redwoods.elumenapp.com/catalog/2024-2025/home) [↗](https://redwoods.elumenapp.com/catalog/2024-2025/home) and [CR Board and Administrative Policies](https://go.boarddocs.com/ca/redwoods/Board.nsf/Public?id=policies) [↗](https://go.boarddocs.com/ca/redwoods/Board.nsf/Public?id=policies).



**Disclaimer**

*The information contained in this syllabus is subject to change at the discretion of the instructor. We strive to stick to the schedules and policies outlined in this document but unforeseeable circumstances may yield a need for updates or changes to the course. You will be notified of any syllabus changes.*

