

Syllabus for General Biology - BIOL1 - F2023

Course Information

Semester & Year: Fall 2023

Course ID & Section #: BIOL 1, E5545

Instructors: K. Reiss, R. Reiner

Course units: 4.0

Instructor Contact Information

Dr. Reiss' Office: SCI 216B

Office hours: TBA and by appointment
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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.

IMPORTANT:

- 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

- 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

OpenStax Concepts of Biology

https://openstax.org/details/books/concepts-biology

free for download

can get hardcopy at low cost

Accessibility

College of the Redwoods is 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 <u>Disability Services and Programs for Students</u> (DSPS). Students may make requests for alternative media by contacting DSPS, in Eureka: 707-476-4280, student services building, 1st floor.

Evaluation, Grading, and Classroom Policies

| Lab Assignments | hand in Monday in lecture | 15 x 20 | 300 |
|------------------------|-----------------------------|---------|-----|
| Online Lecture Quizzes | complete by Sunday midnight | 15 x 10 | 150 |
| Participation | be there, aware, and care | 10 x 15 | 150 |
| Midterm Exams | not explicitly cumulative | 2 X 100 | 200 |
| Final Exam | 50% comprehensive | 200 | 200 |

1000 total points possible

Grading Scale:

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

Attendance: You are expected to attend all lectures and labs and will lose 3 points for each missed session. Of course, we understand that life happens. Cars don't start, you get sick or your kids are sick, etc. It is important that you 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.

Late Work: Your completed labs are due each Monday in lecture the week following the lab. Your online quiz of the preceding week's material is due Sunday night at midnight. NO LATE WORK WILL BE ACCEPTED unless you have made prior arrangements with your instructor.

Exam Make-Ups: There will typically be a multi-day window during which online quizzes are available. It is up to you to find a good time within this window that doesn't conflict with other aspects of your life.

- You MUST have a serious and verifiable excuse to miss a lecture exam. Ideally, you will contact me before the exam begins.
 - o **Contact me** 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.
 - o Verifiable means you have a doctor's note, a police report, or some other form of evidence.

Academic Dishonesty *Truth matters! Cheating sucks!*

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 of Math and Science and to the Chief Student Services Officer that will become part of your permanent record. 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) is worth reading.

A couple 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!

It's far better to earn an F with integrity than pass the class through cheating!

Important Admissions and Records Dates S2023

- August 19th: Classes begin
- August 25th: Last day to add a class
- September1st:Last day to drop without a "W" and receive a refund
- September4th:Labor Day holiday
- September 5th: Census date (20% of class)
- October 26th: Last day to petition to graduate
- October 27th: Last day for student- or faculty-intitated withdrawl (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

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.

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) 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.

Canvas Information

Canvas is the Learning Management System used to support classes at CR. Even face-to-face classes use Canvas to organize course materials, make resources available, and communicate with students,. It is imperative that you can access and comfortably navigate Canvas.

- 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: <u>Canvas Student Orientation Course (instructure.com)</u>

Setting Your Preferred Name in Canvas

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 <u>Student Information Update form</u>.

Schedule

General Biology F2023

This schedule is tentative and subject to change.

| Week | Lecture (M/W 1:15-2:40, HUM 112) | Lab (M or W 10-1:10, SCI 108) | Reading | | | |
|--------|--|--|---------------|--|--|--|
| 1 | What Is Life and Where Did It Come From? | | 1, Appendix C | | | |
| | What is Science? | Lab 1: Measurements and Data Analysis | | | | |
| 2 | Chemistry of Life | | 2, Appendix A | | | |
| | Biomolecules | Lab 2: Chemistry of Life | | | | |
| 3 | LABOR DAY HOLIDAY | | 3.1-3.3 | | | |
| | The Cell | Lab 3: Scopes and Cells | | | | |
| 4 | Cell Membranes | | 3.4-3.6 | | | |
| | What Is Energy? | Lab 4: Diffusion and Osmosis | 4.1 | | | |
| 5 | Energy in Cells: Cellular Respiration | | 4 | | | |
| | Energy in Cells: Photosynthesis | Lab 5: Cellular Respiration | 5 | | | |
| 6 | Exam 1 | | | | | |
| | DNA Structure and Replication | Lab 6: DNA | 9.1-9.2 | | | |
| 7 | DNA Transcription and Translation | | 9.3-9.5 | | | |
| | Mitosis and Meiosis | Lab 7: Mitosis and Meiosis | 6,7 | | | |
| 8 | Mendelian Genetics | | 8 | | | |
| | Non-Mendelian Genetics | Lab 8: Genetics | | | | |
| 9 | What Evolution Looks Like | | 11 | | | |
| | Mechanisms of Evolution | Lab 9: Natural Selection | | | | |
| 10 | How Allele Frequencies Change | | | | | |
| | Biotechnology | Lab 10: Population Genetics | 10 | | | |
| 11 | Exam 2 | | | | | |
| | Systematics | Lab 11: Systematics | 12 | | | |
| 12 | History of Life on Earth | | 13.1-13.3 | | | |
| | Microbes | Lab 12: Microbes and Microbial Ecology | Appendix B | | | |
| 13 | Fungi | | 13.4 | | | |
| | Plants | Lab 13: Eukaryote Diversity | 14 | | | |
| | THANKSGIVING HOLIDAY | | | | | |
| 14 | Animal Bodies | | 16 | | | |
| | Animal Diversity | Lab 14: Animal Organ Systems | 15 | | | |
| 15 | Ecology | , | 19 | | | |
| | Conservation and Biodiversity | Something fun!! | 21 | | | |
| Finals | Final Exam | | | | | |
| Week | 50% last 4 weeks lecture; 50 % comprehensive lab and lecture | | | | | |