

Welcome to Biology 101!

Course Number: BIOL 101 (CRN 30140)

Course Title: Our Biological World

Science, Math, Technology Division

4 units

MWF, 10:10-11:00 + lab hours by arrangement

Room: 7106

Hours by Arrangement: In addition to regular class hours you will be assigned 2.5 hours of lab work each week, to be completed in the Biology lab (7238).

Course Prerequisites: Eligibility for ENGL 836.

Course Classification: Transfer credit: UC; CSU (B2, B3).

Course Description: Study of biology as it relates to humans and their environment, with special emphasis on ecological interrelationships, evolution and genetics, and topics of current importance. Recommended for non-science majors to fulfill laboratory science transfer requirement.

Philosophy: Lewis Thomas said “*Man is embedded in nature. The biologic science of recent years has been making this a more urgent fact of life. The new, hard problem will be to cope with the dawning, intensifying realization of just how interlocked we are.*” Biology is part of all of our lives: as humans and as citizens and voters. Many of the issues we deal with each day, such as health, genetic counseling, energy alternatives, and land use, deal with biology. In this course you will learn basic principles of biology and to objectively apply them to your decisions on health and medicine, nutrition, and the environment. In addition to learning how science is done, the lab requirement is designed to help you learn to collect data and apply that information to problem solving.

Instructor: Dr. Christine Case

Please contact the instructor at any time with questions concerning the course, an assignment, an upcoming quiz, etc.

Office: 7214

Phone: 650.738.4376

E-mail: case@smccd.edu

Student Learning Outcomes: After completing this course, you will be able to:

1. Demonstrate an understanding of the scientific method and the ability to use appropriate models to solve problems.

2. Apply the knowledge of biological science to distinguish between observations, inferences, relationships, and testimonials under investigation.
3. Demonstrate the ability to use scientific knowledge to assess personal and environmental health.
4. Use the scientific knowledge and skills necessary for active citizenship.

Attendance: Regular attendance is expected at every meeting. Role will be taken during each class meeting. When students must be absent because of illness or emergencies they should contact the instructor in advance. A student may be dropped for missing six lecture class meetings or two labs. Responsibility for making up work missed because of absence rests with the student.

The Grade of W: You may wish to withdraw from this class. If you withdraw prior to 2-10-12 nothing will appear on your record. If you withdraw between 2-10-12 and 4-26-12, a *W* will appear on your transcript. You will receive a *W* for exceeding six absences prior to 4-26-12. *Anyone exceeding six absences after 4-26-12 will get a final grade of F.*

Disability: In coordination with the DSPS office, reasonable accommodation will be provided for eligible students with disabilities. If you do not have an accommodation letter, please contact the DSPS Office at (650) 738-4280.

Requirements: Papers are due on the assigned dates, late papers will not be accepted. All tests and quizzes must be taken on the designated days, make-ups will not be given.

Required student preparation: Lectures, lab activities, small group activities, and quizzes constitute the main activities of the class.

All assignments, two midterms, and one final examination must be taken for a passing grade. All Lab Reports and lab post tests must be completed to earn a passing grade; laboratory will account for 40% of the grade.

GRADING	A	≥ 88%
	B	75-87%
	C	60-74%
	D	45-59%
	F	≤ 44%

Class participation will be taken into consideration during grading.



Class conduct policy: You are also responsible for adhering to the Code of Student Conduct outlined in the College Catalog. Cell phones *must be turned off* during class. No extraneous conversation during class.

Academic honesty. Plagiarized lab reports and papers will receive a score of zero. The work you submit must be your own. The Skyline College Catalog has a complete statement defining cheating and plagiarism.

Textbooks - Required

Krogh, D. *Biology: A guide to the natural world*, 5th ed. San Francisco: Benjamin Cummings, 2011.
Case, C. L. *Our Biological World*. Skyline College.

Study Aids. Study questions for each topic in the Lecture Schedule can be found at the **BIOL 101 web site:** <<http://skylinecollege.edu/case/>> These questions will help you study for tests.

LECTURE SCHEDULE

Go to skylinecollege.edu/case for materials. Be sure to download the wordlist for each topic, read the study aids/hints, and take the *Wordlist quiz*.

Date	Topic	Reading*
Week 1	Introduction. <i>Do the online assignment.</i>	Chapter 1
Week 2	Wordlist 1: Biodiversity	Chapter 16; pp. 329-334
Week 3	Wordlist 2: Natural Selection	Chapters 17 & 18
Week 4	Wordlist 3: Biomes & Ecosystems	Chapter 35
Week 5	Wordlist 4: Populations	Chapter 34
To be announced	TEST	
Week 6-7	Wordlist 5: Energy	Chapters 6, 7, & 8; pp. 591-610
To be announced	TEST	
Week 8	Wordlist 6: More energy	pp. 108-112
To be announced	TEST	
Week 9	Wordlist 7: Air: Gas exchange	pp. 584-587, 704-711
Week 10-11	Wordlist 8: Homeostasis: Water	pp. 97-102, 611-614
To be announced	TEST	
Week 12	Wordlist 9: Immunology	Chapter 29; pp. 382-389
Week 13	Wordlist 10: Molecular Genetics & Biotechnology	Chapters 9, 10, 15
Week 14-15	Inheritance	Chapter 12
May 21	FINAL EXAMINATION	8:10-10:40 AM



track me

-
- Krogh, D. *Biology: A guide to the natural world*, 5th ed. San Francisco: Benjamin Cummings, 2011.

LABORATORY SCHEDULE

KEEP THIS SCHEDULE IN A BINDER WITH YOUR LAB. MANUAL.¹ Read the assigned lab. exercise prior to coming to class. Lab. exercises are due by the **Friday** following assignment of each exercise. Please note the due dates. One point per day late will be deducted.

Date as- signed	Experiment Title ¹	Reading ²	Date due	Study guide score	Post test score
1-18	Self-guiding field trip³	4-20	4-20		
1-25	Experimenting with the Scientific Method	pp. 6-8, 424	2-3		
2-1	Metrics, Microscopes, & Cells	Ch. 4	2-10		
2-8	Ecological Adaptations of Tracheophytes	Ch. 25	2-24		
2-22	Plant Communities, field trip ^{4, 5}	pp. 712-714	3-2		
2-29	Symbiosis ⁶	pp. 412-413, 680	3-16		
3-14	Nutrition	pp. 591-610	3-23		
3-21	Photosynthesis and Respiration	Ch. 7-8	3-30		
3-28	Water Pollution ⁶	pp. 719-724	4-13		
4-11	Sewage Treatment Plant ^{5, 7}	pp. 719-724	4-20		
4-18	Controlling Infections ⁶	Ch. 21	4-27		
4-25	Special Senses	Ch. 27	5-4		
5-2	Genetics ⁶	Ch. 12	5-11		
5-9	Animal Fertilization	Ch. 33	5-18		
1-20	Self-guiding field trip³	4-20	4-20		



¹ Case, C. L. *Our Biological World: Laboratory Manual*.

² Krogh, D. *Biology: A guide to the natural world*, 5th ed. San Francisco: Benjamin Cummings, 2011.

³ This field trip (Zoo, or Steinhart Aquarium) is self-guiding. No CD ROM or post test. 50 points. Additional information is in your lab manual. Writing guidelines are on the BIOL 101 web site.

⁴ Grade Option Activity for this week is the Berlese Funnel.

⁵ Field trips will be scheduled at least twice during the week to give you maximum opportunity to attend on one of the dates.

⁶ Includes a computer simulations are on the BIOL 101 web site <skylinecollege.edu/case>.

⁷ Grade Option Activity for this week is Enology.

