

Dakota College at Bottineau Course Syllabus

Course Prefix/Number/Title: BIOL 150 General Biology I, Number of Credits: 4 semester credits

Course Description: The first semester of a two-semester sequenced study of the fundamental topics of biology, with an emphasis on cellular biology.

Prerequisites: none

Course Objectives: Demonstrate an understanding and proficiency with the following concepts:

1. Understand cellular and viral structure and function.
2. Understand fundamental biochemical principles.
3. Understand rudimentary classical genetics
4. Understand rudimentary molecular genetics and have a familiarity with various DNA technologies
5. Use knowledge about mechanisms of cellular and molecular processes.

Instructor: C. L. Lura, Ph.D.

Office: NSC 114

Office Hours: MWF: 1:00-2:00

Phone: (701) 228-5472

Email: charles.lura@dakotacollege.edu

Lecture/Lab Schedule: Fall semester

Textbook(s): Campbell, N.A. and J.B. Reece. 2014. Biology. 10th Edition. Pearson/Benjamin Cummings, Publ. Co.

Lura. 2014. Biology 150 Lab Manual.

Course Requirements:	4 Hour Exams @ 100 pts. ea.	400 pts.
	Lec assign/quizzes	100 pts.
	2 Lab Exams @ 50 pts. ea.	100 pts.
	10 Lab Quizzes	<u>100 pts.</u>
	TOTAL POINTS	700

A = 100-90%

B = 89-80%

C = 79-70%

D = 69-60%

F = below 60%

**BIOLOGY 150 TENTATIVE SYLLABUS
FALL 2014**

DATE	TOPIC	READING ASSIGN.
Aug. 27-29	Scientific Method, Chemistry of Life, Water	Chapter 2,3,4
Sep 1-5	Monday September 1: Labor Day Large Biological Molecules LAB: Microscopy	5
Sep 8-12	Prokaryotes and Archaea LAB: Osmosis and Diffusion	27
Sep 15-19	Eukaryotic Cell Structure and Function FRIDAY SEPTEMBER 19: HOUR EXAM I LAB: Chemistry of Life	6
Sep 22-26	Membranes, Endosymbiotic Theory LAB: Eukaryotic Cell Structure and Function	7
Sep 29-Oct 3	Sexual Life Cycles, Tissues and Tissue Organization LAB: Prokaryotic Cell Structure and Function	13
Oct 6-10	Virus Structure and Function, Viroids, Prions Wednesday, October 8, Assessment Day – No Class LAB: Enzymes	19
Oct 13-17	Enzymes and Metabolism FRIDAY OCTOBER 17: HOUR EXAM II LAB: Lab Midterm	8
Oct 20-24	Photosynthesis LAB: Photosynthesis	10
Oct 27- 31	Respiration LAB: Respiration	9
Nov 3-7	DNA, Mitosis LAB: Mitosis and Meiosis	16,12
Nov 10-14	Tuesday November 11: Veteran's Day Mitosis cont'd., Meiosis FRIDAY NOVEMBER 14: HOUR EXAM III LAB: Inheritance and Probability	12,13
Nov 17-21	Protein Synthesis LAB: Protein Synthesis	17
Nov 24-28	Gene Expression and Regulation Thursday & Friday November 27-28: Thanksgiving Break LAB: No lab this week	18
Dec 1-5	Inheritance LAB: Human Genetic Disorders	14,15

*******FINAL EXAMS DECEMBER 15-19*******

General Education Goals/Objectives:

Goal 1: Explains the interrelationships between humans and their environment and the role of science in their lives

Goal 2: Demonstrates knowledge and application of technology

Relationship to Campus Theme:

Class announcement/discussion on news items about technological developments in biology and how that influences the discipline as well as the societal aspects.

Covers DNA analysis, genetic engineering, and DNA fingerprinting

Knowledge on cell structure and function related to microscope development discussed.

Interject technological developments and how they influence scientific development and societal issues.

Classroom Policies: Regular attendance and participation in lab and lecture is expected.
All make-up exams will include a significant essay/short answer component and must be made up within one week of the students return to class unless prior arrangements have been made.

Academic Integrity: Cheating on a test, quiz, or other assessment results in zero points for the assessment.

Disabilities and Special Needs: Any accommodations due to a learning disability must come through the Dakota College Learning Center. If you have a diagnosed learning disability, you need to contact the Learning Center in Thatcher 1104 or phone (701) 228-5477.

Student Email Policy

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.