

Dakota College at Bottineau Course Syllabus

Course Prefix/Number/Title: BIOL 111 Concepts of Biology

Number of Credits: 4 semester credits

Course Description: This course is a study of nature, diversity, and classification of life, cells and cell processes, genetics, evolution, and ecology. The course is an introductory level, non-majors transferable class designed to meet requirements of a lab science.

Pre-/Co-requisites: none

Course Objectives:

1. To be able to understand the theories and concepts of cell biology, genetics, ecology, and evolution
2. To be familiar with the resources and methods used to acquire scientific data
3. To be able to demonstrate an orderly approach to the solution of a problem
4. To be able to relate past knowledge to an understanding of modern biology
5. To have acquired an awareness of new scientific developments and their potential implications

Instructor: Lura

Office: NSC 114

Office Hours: MWF 10:00-11:00

Phone: (701) 228-5472

Email: chuck.lura@dakotacollege.edu

Lecture/Lab Schedule: Fall semester

Textbook(s): Biological Sciences Curriculum Study (BSCS). 2003. Biological Perspectives. Second Edition. Kendall/Hunt Publishing. Co., Dubuque, IA.

Course Requirements:	3 Hour Exams @ 100 pts. ea.	300 pts.
	Attendance	100 pts.
	1 comprehensive Final Exam	100 pts.
	Lec assign/quizzes	200 pts.
	Lab evaluations	<u>200 pts.</u>
	TOTAL POINTS	900

A = 100-90%

B = 89-80%

C = 79-70%

D = 69-60%

F = below 60%

Tentative Course Outline:**BIOLOGY 111 TENTATIVE SYLLABUS
FALL 2009**

DATE	TOPIC	READING ASSIGN.
Aug 26-28	Body organization, cell structure Body systems LAB: NO LAB THIS WEEK	Chapter 1 1
Aug 31-Sep 4	Science as a process, Circulatory System Circulatory System LAB: Cells	1,2 2
Sep 7-11	Monday September 7: Labor Day Urinary, Nervous, Endocrine Systems LAB: Photosynthesis	2,3
Sep 14-18	Immune system, Photosynthesis, Respiration LAB: Respiration	3,4
Sep 21-25	Reproductive system, Mitosis and Meiosis FIRST HOUR EXAM, FRIDAY SEPTEMBER 25 LAB: Health Issues	5
Sep 28-Oct 2	DNA to protein, DNA replication, Mutations and genetic variability LAB: DNA	6
Oct 5-9	Meiosis and Mendelian inheritance, Natural Selection LAB: Mitosis and Meiosis	7,8
Oct 12-16	Natural Selection cont'd., Evolution cont'd. LAB: Natural Selection and evolution	8
Oct 19-23	Human genetic legacy, RFLP, Genetic Engineering LAB: Human Genetics	9
Oct 26-30	Human Genome Project, Genetic Technology & Ethics SECOND HOUR EXAM, FRIDAY OCTOBER 30 LAB: Human Genetic Disorders	9
Nov 2-6	Tragedy of the Commons, Environmental management LAB: Tragedy of the Commons	10
Nov 9-13	Wednesday November 11, Veteran's Day Ecosystems: energy flow, nutrient cycling, biodiversity LAB: Populations and Communities	11,12

Nov 16-20	Biodiversity cont'd., Extinction/preservation, Perspectives LAB: Classification and Taxonomy	12
Nov 23-27	Biological basis of behavior Thursday & Friday November 26-27 Thanksgiving Break LAB: NO LAB THIS WEEK	13
Nov 30-Dec4	Environmentalism, Populations, Global Warming LAB: Global Warming	14
Dec 7-11	Global warming, Why civilizations succeed/fail Friday December 11 Third Hour Exam LAB: Ecological Principles and Land Use	none
Dec 14	Putting it all together	none

*******FINAL EXAMS DECEMBER 16-18*******

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:

Announcements/discussion on news topics relating to technological developments in biology
Genetic engineering, DNA fingerprinting, and genetic engineering covered/discussed in class
Class discussion on how technological developments influence our knowledge base (e.g. genetics, cell structure and function)

Class discussion technological development and ethical concerns (e.g. genetic testing/screening)
Portion of lecture and full lab dedicated to ecosystem modeling.

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 MSU-B Learning Center. If you have a diagnosed learning disability, you need to contact the Learning Center in Thatcher 1104 or phone (701) 228-5477.