

BIOLOGY 101 BIOLOGICAL CONCEPTS SYLLABUS Fall 2001

Department: Biological Sciences
Title: BIO101 Biological Concepts
Instructor: Dr. Timothy Johnston
Office: Blackburn 357
Phone: 6367
E-mail: tim.johnston@murraystate.edu
Office hours: Posted outside 357
Class meets: 10:30-11:20 MWF
Text: Campbell, N. A., L. G. Mitchell, and J. B. Reece. Biology Concepts and Connections.

Lab: **You must be enrolled in one of the laboratories listed for this course under Section-01 in the Fall schedule. Failure to receive a lab grade will result in a failing grade for the course.**

Catalog Description:

Biological principles are examined in an active learning mode. This course relates the significance of biology to individuals and society and establishes that this body of knowledge underpins agriculture, medicine, and environmental management.

Purpose:

The course is designed to promote learning of the principles of biology through an active process. The principles of biology are those facts and concepts that are common to the understanding of living things. It helps students understand that science is a method of achieving new knowledge. Observations can be extended by technology and can be confirmed by experiments to reveal facts and lead to new questions. The course also emphasizes the significance of biology to society and individuals by stressing that biology is the basic science that underpins: (1) the production of our food and most of our fiber, (2) our understanding of the environment and its degradation, and (3) the basis of our understanding of disease and its treatments.

Course Objectives:

Students will (a) know the principles of biology, (b) understand the scientific method, and (c) be able to apply biology to daily life.

Instructional Activities: lecture, reading assignments, videotapes, computer software, and experimentation.

Field and Clinical Experiences:

Emphasis will be placed on the student actively pursuing a hands-on approach to problem solving and experimentation during the lab period. After completing the required task, a quiz to determine the extent of the student's understanding of material covered will be given the following week during the lab period.

Resources: text book, lecture notes, videotapes, computer software, web-site.

Grading Procedures:

There will be 4 multiple choice lecture exams worth 100 points each. I will drop the lowest exam grade. The laboratory is worth 100 points (20% of the total grade). There will then be a comprehensive final comprised of 100 multiple choice questions. The Final is worth 100 points and will count as 20% of your grade. Letter grades will be assigned on a straight scale 90%-A, 80%-B, 70%-C, 60%-D, below 60%-E. Attendance Policy:

Roll will be taken. Attendance is required. Roll will be taken approximately 8 times. For each time you are present you will receive two bonus points to be added to your total points before the average is taken.

The last day to drop this course is November 2. By then you will have had two exams and should have pretty good idea what your grade might be. I will NOT ALLOW Audits!

Schedule:

Aug	27	Introduction and Course Design	None
	29	Ecology: The Biosphere	1 & 34
	31	Population Dynamics	35
Sept	3	LABOR DAY, NO CLASSES	
	5	Population Dynamics continued	35
	7	Communities and Ecosystems	36
	10	Communities and Ecosystems continued	36
	12	Exam 1	
	14	The Chemical Basis of Life	2
	17	The Molecules of Cells	3
	19	Molecules continued	3
	21	A Tour of the Cell	4
	24	The Working Cell	5
	26	Working Cell continued	5
	28	How Cells Harvest Energy (Respiration)	6
Oct	1	Photosynthesis : Using light to make food	7
	3	review and catch up	
	5	Exam 2	
	8	Review Exam 2	
	10	Genetics: The Cellular Basis	8
	12	Cellular Basis continued	8, 13
	15	Genetics: Patterns of Inheritance	9
	17	Patterns of Inheritance continued	9
	19	FALL BREAK	
	22	Molecular Biology of the Gene	10
	24	Molecular Biology of the Gene	10
	26	Molecular Biology of the Gene	10
	29	Recombinant DNA	12
	31	Recombinant DNA	12
Nov	2	review and catch up LAST DAY TO DROP	
	5	Exam 3	
	7	Review Exam 3	
	9	Evolution	14, 15
	12	Evolution continued	14, 15
	14	Biological Diversity: Prokaryotes, Protists and Fungi	17, 18
	16	Prokaryotes, Protists and Fungi continued	17, 18
	19	Biological Diversity: Plants	18
	21	Biological Diversity: Animals	19
	23	THANKSGIVING BREAK	
	26	THANKSGIVING BREAK	
	28	Animal Systems	20 - 30
	30	Animal Systems continued	20 - 30
Dec	3	Plant Systems	31 – 33
	5	Review and catch up	
	7	Exam 4	
	10	Review Exam 4 and review for Final	

Final: Friday, Dec 14, 10:30 am., Blackburn 228. Don't be late! NO, you may not take the final early. There are 83 students in this class and all 83 will take it on this day at this time.