

**Ivy Tech Community College, Richmond
General Education Program**

**Course Title: Introductory Biology
BIO 101-12, Internet
Fall, 2005**

Credit Hours: 3

Instructor: Terry St. John

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(leave message)**

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Text:

**Cain, Damman, Lue, Yoon. *Discover Biology, 2nd edition.*
2002**

ISBN 0-393-94055-1

COLLEGEWIDE COURSE OUTLINE OF RECORD

BIO 101, INTRODUCTORY BIOLOGY

COURSE TITLE: Introductory Biology

COURSE NUMBER: BIO 101

PREREQUISITES: Demonstrated competency through appropriate assessment or earning a grade of "C" or better in ENG 025 Introduction to College Writing II, ENG 032 Reading Strategies for College II and MAT 050 Basic Algebra

DIVISION: General Education

PROGRAM: General Education

CREDIT HOURS: 3

CONTACT HOURS: N/A, Internet Class

DATE OF LAST REVISION: Spring, 2004

EFFECTIVE DATE OF THIS REVISION: Summer, 2005

CATALOG DESCRIPTION: Introduces the basic concepts of life. Includes discussion of cellular and organismal biology, genetics, evolution, ecology, and interaction among all living organisms. Addresses applications of biology to society.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the student will be expected to:

1. Apply the scientific method to problems encountered in everyday life.
2. Provide examples of the historic development of current scientific thought.
3. Demonstrate basic skills of metric measuring, data collection, data interpretation, and microscope use.
4. Interpret simulations of biological systems and relate them to concrete applications.
5. Describe plant structures and functions including reproductive biology, development, and regulation of systems.
6. Identify the internal and external structures of both the prokaryotic and eukaryotic cells and define the functions of each.
7. Recognize energy pathways such as photosynthesis, respiration, and overall cellular metabolism.
8. Describe the basic processes of mitosis and meiosis and relate them to the life cycle of organisms.
9. Summarize the mechanisms of inheritance and the processes by which protein and DNA are synthesized.
10. Describe the major principles of genetics and biotechnology.
11. Understand the mechanisms of natural selection and their impact on evolution.
12. Identify major ecological concepts such as communities, energy flow and nutrient cycling, and renewable and non-renewable resources.
13. Describe the general properties and characteristics of the biological kingdoms.

14. Describe human structures and functions including reproductive biology, development, behavior, and regulation of organ systems.
15. Apply the scientific method and the knowledge gained from the course to societal concerns.

COURSE CONTENT: Topical areas of study include –

Scientific method	Basic inorganic and organic chemistry principles
Animal biology	Cell cycle and the mechanisms of molecular genetics
Plant biology	Natural selection and evolution
Biotechnology	Cell structure and function
Genetics	General process of energy transformation: enzyme function, photosynthesis, aerobic and anaerobic respiration
Ecology	
Phylogeny	

SUGGESTED LAB CONTENTS:

Microscopy	Metric system
Osmosis	Chemistry
pH/Model building	Cell structure
Genetics	Environmental
Dicotomous Key	Simulation of protein synthesis
Enzyme activity	Comparative anatomy
Plant anatomy	

ATTENDANCE:

Class attendance is necessary for attainment of the objectives of the course. As this is an Internet based course, attendance can't be handled in the traditional way. You will be required to email me each week, with the week defined as Monday at 12:01 am to Sunday at 11:59 pm. This check-in is required to assure me that you are keeping the class in mind each week and don't fall behind. If you email homework to me, take a test, or contact me by email for any other reason, that will count as your check-in for the week.

If you fail to check in 4 times you will receive an F for the class.

COURSE SCHEDULE AND CONTENT SUBJECT TO CHANGE AT THE INSTRUCTOR'S DISCRETION.

LAST DAY TO DROP COURSE WITHOUT GRADE: November 11, 2005

STUDENT ASSESSMENT, GRADING, AND MAKE-UP POLICY:

Tests will cover material defined in the class schedule and/or by the instructor. You will be given a one week time frame to take a test at the testing/learning resource center

nearest you. If you can't take a test during the assigned week, you must notify the instructor before the week is over in order to have a chance to have the time extended. The instructor will determine if the reason for missing the test is valid. "I wasn't ready" is not a valid reason! If notification is not received prior to the end of the test week, a deduction of 10% will be made from the student's score if taken within 7 days (for example, a 93% will become an 83%). There will be no further extensions beyond that and you will receive a "0" for the test. The instructor reserves the right to give an alternate makeup test.

For late lab/homework assignments, 10% of the total points available will be deducted if up to one week late. None will be accepted beyond that and a "0" will be assigned.

There will be no lab/homework assignments accepted after December 7, 2005. The last test must be completed by December 14, 2005.

GRADING

The lecture tests will comprise 70% of the final grade and the lab/homework assignments will be 30%. All grades will be posted on Blackboard so that you can check your status at any time. Calculate your course average as follows:

$$\frac{\text{Test score total}}{\text{Total test points possible}} \quad \times 70 = \mathbf{A}$$

$$\frac{\text{Lab/homework score total}}{\text{Total lab/homework points possible}} \quad \times 30 = \mathbf{B}$$

$$\mathbf{A + B = Course Grade}$$

GRADING SCALE:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	F

ACADEMIC HONESTY STATEMENT:

The College is committed to academic integrity in all its practices. The faculty value intellectual integrity and a high standard of academic conduct. Activities that violate academic integrity undermine the quality and diminish the value of educational achievement.

Cheating on papers, tests or other academic works is a violation of College rules. No student shall engage in behavior that, in the judgment of the instructor of the class, may be construed as cheating. This may include, but is not limited to, plagiarism or other forms of academic dishonesty such as the acquisition without permission of tests or other academic materials and/or distribution of these materials and other academic work. This includes students who aid and abet as well as those who attempt such behavior.

ADA STATEMENT:

Ivy Tech State College seeks to provide reasonable accommodations for qualified individuals with documented disabilities. If you need an accommodation because of a documented disability, please contact the Office of Disability Support Services.

If you will require assistance during an emergency evacuation, notify your instructor immediately. Look for evacuation procedures posted in your classroom.