

Northeastern Technical College

Biological Science I (w/Lab)
BIO 101
Fall 2007

Instructor: Scott D. Schanz
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Text and Lab Manual: Starr, C. and Taggart, R. 2006. Biology: The Unity & Diversity of Life
[11th Edition]
Gunstream, S.E. 2005. Symbiosis Pearson/Prentice Hall

Course Description: This course is the first of a sequence introducing Biology. Topics include the scientific method, basic biochemistry, cell structure and function, cell physiology, cell reproduction and development, Mendelian genetics, population genetics, natural selection, evolution, and ecology.

College Wide Learning Outcomes:

- Collect information needed for a given application.
- Analyze information.
- Evaluate information to determine usefulness.
- Apply knowledge to make decisions and solve problems.

Attendance Policy: According to college policy, a student may miss 20% of the scheduled class periods. When a student exceeds this limit, he or she will be dropped for excessive absences. If the student initiates the withdrawal before midterm, a grade of W will be used. After midterm, the grade of W will only be used for students who are passing the course; if a student who is not passing initiates a drop after midterm, he or she will receive a WF.

If the instructor initiates the withdrawal due to excessive absences, at any point during the course, a grade of F will be used for students who are dropped. If a student leaves class or lab early, the hours missed will be counted as part of the hours absent. If a student misses a lab, the work cannot be made up. **The student is responsible for material covered in any class or lab missed.**

Three tardies will equal one absence. Please remember this when you are counting your absences. A tardy is when the student comes into class after class has begun.

Grading/Other Policies:

- Tests *may* consist of multiple choice, fill-in, matching, and/or short answer/essay questions based on lecture, handouts, class activities, text information, and lab.
- A missed lecture test, due to illness or emergency, can be made up during a mutually agreeable time. **A make-up test** will be given. **Verification** of illness or emergency (ie-a note from a doctor) is required in order to take the test at a later date. It is the responsibility of the student to contact the instructor concerning the missed test within 24 hours of the missed test, otherwise a grade of 'zero' will be recorded.
- Assignments will lose 20% per class meeting if they are handed in late.
- Missed labs cannot be made up.
- In order to receive credit for lab, it is expected that each student will *actively* participate during lab periods. Students must provide their own gloves if they wish to use them during lab.
- Cell phones or other electronic devices may not be used during class time. They must be turned off prior to entering class.
- Any student who arrives late for a test will not receive a test if another student has finished their test and left the room.
- Any student caught cheating during a test or other evaluation will be reported to the Vice-President for Student Services for appropriate action. See pages 24-25 in the Student Handbook.

SYLLABUS
(Subject to Change)

Test 1 Week of September 10

Introduction to Biology and Cells

Chapter 1 Invitation to Biology
Chapter 4 Cell Structure and Function
Chapter 5 A Closer Look at Cell Membranes

Test 2 Week of October 01

Cell Division

Chapter 9 How Cells Reproduce
Chapter 10 Meiosis and Sexual Reproduction

Test 3 Week of October 22

Genetics

Chapter 11 Observing Patterns in Inherited Traits
Chapter 12 Chromosomes and Human Inheritance
Chapter 13 DNA Structure and Function
Chapter 14 From DNA to Proteins
Chapter 15 Control Over Genes (Selected Topics)
Chapter 16 Studying and Manipulating Genomes (Selected Topics)

Test 4 Week of November 12

Evolution

Chapter 17 Evidence of Evolution
Chapter 18 Microevolutionary Processes
Chapter 19 Evolutionary Patterns, Rates, and Trends

Test 5 Week of December 03

Biochemistry

Chapter 2 Life's Chemical Basis
Chapter 3 Molecules of Life

Metabolism

Chapter 6 Ground Rules of Metabolism
Chapter 7 Where it Starts-Photosynthesis
Chapter 8 How Cells Release Chemical Energy

Comprehensive Final Final Exam Period

Final Average

Lecture Test Average 45%
Comprehensive Final 20%
Lab Grade Average 25%
Paper/Presentation 10%

Grading Scale

90-100 =A
80-89 =B
70-79 =C
60-69 =D
below =F