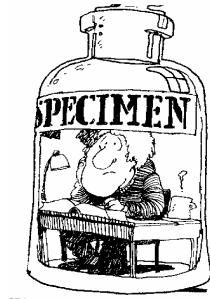


Course Description: Fall 2005 30126 (02) Lecture (SC-129) MWF 1:00-1:50 pm

This course covers the fundamental concepts of life including biochemistry, organization and function of cells, expression and transmission of genetic information, and processes of evolution. It is designed for biology majors. Co-requisite: BIOL 1615.

Course objectives:

- Apply the scientific method in analyzing a problem
- Understand the structure of an atom and how this relates to bonding.
- Describe proteins, carbohydrates, lipids and nucleic acids
- Describe the function of key organelles.
- Compare active and passive transport across the cell membrane.
- Understand the importance of enzymes.
- Know how transcription and translation function in protein synthesis
- Contrast photosynthesis and cellular respiration.
- Explain the process of mitosis and meiosis.
- State Mendel's laws and discuss patterns of inheritance.
- Describe contemporary uses of biotechnology, explaining the genetic principles.
- Explain the theory of evolution by natural selection and other evolutionary principles.



Textbook:

“Biology Life on Earth” 7th ed. by Audesirk

ISBN # 0131618563 (Required)

“The Double Helix” by Watson (Required) ISBN #074321630X

Lecture Outline by Debra Hanson (Strongly recommended)

Contact Hours:

Instructor: Debra Hanson

Office hours (SC-111):

MW 2:00-3:00 F 11:00-12:00

T 10:00-11:00, 4:00-5:00

Open door policy.

Phone: 865-8129 (local calls)

E-mail: Hanson@SUU.edu

Academic integrity policy:

Scholastic dishonesty will not be tolerated and will be prosecuted to the fullest extent. You are expected to have read and understood the current issue of the student handbook (published by Student Services) regarding student responsibilities and rights, and the intellectual property policy, for information about procedures and about what constitutes acceptable on-campus behavior.

Students are expected to attend all class lectures and to treat others with respect. This class should reflect a caring, safe environment for learning. Please be considerate! Be on time to class. Excessive talking or disruptive behavior may result in your removal from the class. Please see me if there is anything you are uncomfortable with.

Grading:	3 Unit Tests @ 100 each	300
	Comprehensive final exam	200
	Double Helix report	50
	10 Assignments @ 10 ea.	<u>100</u>
		650

Assignments will be short answer questions based on the previous chapter. You are responsible for printing the assignments from WebCT. Assignments must be done individually. The due date is posted on the syllabus. A 10% reduction in score will apply for each calendar day they are late (deduction period begins the same day they are due). Unit tests are not comprehensive. Bring a scantron for the multiple choice questions. Practice questions can be found on the web site. Use the lecture notes to help you focus your efforts. Listening closely during lecture and reading each chapter prior to class will enhance your understanding of the material and help you stay current. Exams can only be made up if you are ill or have a valid reason. Please contact me if you will be missing class. Feel free to ask questions at any time. I am here to help. ☺

ADA Statement:

Students with medical, psychological, learning or other disabilities desiring academic adjustments, accommodations or auxiliary aids will need to contact the Southern Utah University Coordinator of Services for Students with Disabilities (SSD), in Room 205C of the Sharwan Smith Center or phone (435) 865-8022. SSD determines eligibility for and authorizes the provision of services.

Tentative Fall 2005 schedule: BIOL 1610

Wk	Date	Monday	Wednesday	Friday	Text
1	8/29	Sci method	Kingdoms of life	Chemistry	1,2
2	9/5	-----	Bonding, acids	*A1 /Molecules	3
3	9/12	Molecules	Molecules	Cell membrane	4
4	9/19	*A2 /Cell membrane	*TEST 1	Prokaryotic cells	5
5	9/26	Eukaryotic cells	Eukaryotic cells	*A3 /Energy	6
6	10/3	Enzymes	Photosynthesis	*A4 /Photosynthesis	7
7	10/10	Respiration	Respiration	*A5 /Respiration	8
8	10/17	*TEST 2	DNA	DNA	9
9	10/24	-----	Gene expression	Gene mutation	10
10	10/31	*A6 /Mitosis	Mitosis, cancer	Cloning	11
11	11/7	Meiosis	*A7 /Meiosis	*TEST 3	11
12	11/14	Inheritance	Inheritance	Inheritance	12
13	11/21	*A8 /Disorders	-----	-----	12
14	11/28	Recombination	Biotechnology	*A9 /Biotechnology	13
15	12/5	Macroevolution	Microevolution	*A10 /Microevolution	14,15
16		**COMPREHENSIVE FINAL EXAM** (Thursday, December 15 at 1-2:50 pm)			--

***A = Assignment due date**

Note: Information in this syllabus is subject to change as deemed appropriate by the instructor.