

**COURSE:** Introductory Cell Biology, BIO 244, Fall 2007

BIO 244.01, TTh, 8-9:20, LDB 218

BIO 244.02, MWF, 8-8:50, LDB 216

Note: Students must be enrolled in a lab section, along with the lecture.

**INSTRUCTOR:** Dr. Joan Hudson

Office: Rm 129 - Lee Drain Building, [bio\\_jxn@shsu.edu](mailto:bio_jxn@shsu.edu), (936) - 294-1541

Office Hours: Available MTWTh: 9-10:30, Th: 11:30-1:00, or by appointment

**TEXT:** *Biological Science, Vol 1, The Cell, Genetics and Development* by Scott Freeman. Pearson Prentice Hall, 2005. Bring the text to class each day. It will be to your advantage to have the text with you in order to refer to figures from the text used in lecture.

**COURSE OBJECTIVES:** The objective of this course is to provide a broad overview of cell biology for science and other majors. The student will: 1) better understand how biological organisms function, 2) learn about the four groups of macromolecules present in all life forms, 3) learn protein structure, function, and synthesis 4) learn nucleic acid chemistry, DNA replication and inheritance, 5) learn cell structure and reproduction, 6) learn organelle structure and function, 7) learn membrane structure and function, 8) learn how cells transform energy and 5) be better able to evaluate scientific studies in cell biology. After taking this course, the student should have a better understanding of cell structure, chemistry and function and be able to use this information in upper level biology classes.

**ATTENDANCE:** Regular and punctual attendance is expected. Perpetual tardiness will be recorded as absences. Good attendance is no more than 2 classes missed. If you will be absent for a university event (ex. music, sport, rodeo etc.), please let me know ahead of time. Attendance will be taken each day. A seating assignment chart and sign-up sheet will be used to take attendance.

**GRADING:** Four HOURLY exams (100 points each). The fourth exam is the final exam. Lab is 100 points (10 labs, 10 points each). Total points in this class = 500 points. **There are no extra credit points or activities for extra credit.**

Final grade determination:

A = 90% - 100% (450-500 points)

B = 80% - 89% (400-449 points)

C = 70% - 79% (350-399 points)

D = 60% - 69% (300-349 points)

F = 0% - 59% (0-299 points)

**EXAMS:** The exams will have multiple choice questions (using Scantron 882). The majority of the material on the exams will come from the lecture notes. The vast majority of lecture notes will come from the text. Revising your lecture notes is highly recommended. **There are no extra credit points.**

**MAKE-UP POLICY:** Lecture exams can be taken at a different time, only with an excused absence. If not taken at the scheduled time, a completely essay exam will be given as a make-up exam. There are no exceptions. (To avoid taking an all essay exam, take the exam during the regularly scheduled time.) **ACADEMIC DISHONESTY:** The Student Code and Faculty Handbook will be followed in the event of academic dishonesty. Any form of cheating will not be tolerated..

**STUDENTS WITH DISABILITIES:** Students with any type of disability that may prevent them from fully demonstrating their abilities in this class should contact me as soon as possible. We can work together to come up with a plan to assist you with this course.

**LAB:** Information will be provided in lab concerning the laboratory part of this class. Lab exercises will be completed and turned in each week to receive 10 points. No labs will be dropped. 10 lab exercises, 10 points each = 100 points.

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WEEK	Week of:	LECTURE	READING
1	20 August	Introduction, Atoms	Chapter 1, 2
2	27 August	Atoms and Molecules of Ancient Earth	Chapter 2
3	3 September 5 September	Holiday Protein Structure and Function	Chapter 3
4	10 September	Nucleic Acids	Chapter 4
5	17 September	An Introduction to Carbohydrates	Chapter 5
<b>EXAM 1 - Wednesday, 19 September 2007, - covering weeks 1-4</b>			
6	24 September	Lipids, Membranes, and the First Cells	Chapter 6
7	1 October	Inside the Cell, Cell-cell Interactions	Chapters 7, 8
8	8 October	Cellular Respiration and Fermentation	Chapter 9
9	15 October	Photosynthesis	Chapter 10
<b>EXAM 2 - Wednesday, 17 October, 2007 - covering weeks 5-8</b>			
10	22 October	The Cell Cycle, Meiosis	Chapters 11, 12
11	29 October	Mendel and the Gene	Chapter 13
12	5 November	DNA Synthesis	Chapter 14
13	12 November	How Genes Work	Chapter 15
<b>EXAM 3 - Friday, 16 November, 2007 - covering weeks 9-12</b>			
14	19 November	Transcription and Translation	Chapter 16
15	26 November	Control of Gene Expression in Bacteria	Chapter 17
16	3 December	Analyzing and Engineering Genes	Chapter 19

**FINAL EXAM - EXAM 4 - University Schedule**