Biology 2170 – Fundamentals of Life Science II

Semester: Spring 2009

Section: 003 (TR 1:00-2:40 pm)

Location: BO 1053

Instructor: Dr. Deborah Chadee

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Office hours: Tuesday 11:00-1:00

Thursday 11:00-1:00 (or by appointment)

Required Text

Life: The Science of Biology – by Sadava, Heller, Orians, Purves, Hillis (Eighth edition)

Recommended: Study Guide to accompany Life (8th ed.) – Edward M. Dzialowski et al.

Important Dates

Last day to withdraw: March 27

Final Exam: May 6, 2:45-4:45 pm

Test schedule

		Points 1997
Test 1	Feb. 5	100
Test 2	Feb. 26	100
Test 3	Mar. 26	100
Test 4	Apr. 16	100
Final Exam		200
Top three test	S	300
	Total	500

Exams & Grading:

Your final grade will be calculated from three (of four) best tests plus the final comprehensive exam.

There will be four 50 minute in-class tests and one comprehensive two-hour final examination. Exams will cover what was taught in lectures and the appropriate textbook material.

The in-class tests will usually consist of 50 multiple choice questions, with the possibility of some short answer or problem-solving questions.

The final-exam is comprehensive and will cover the entire semester. The final exam will have 100 multiple choice questions, with the possibility of some other types of questions.

Tests will be scored as % correct points, which will correspond to a letter grade according to the table below. This scale is based on the assumption that knowledge of more than 50% of the material is needed to pass this course.

<u>Grade</u>	<u>% Correct</u>	<u>Grade</u>	<u>% Correct</u>
А	90-100	C+	71-74
A-	87-89	С	65-70
B+	83-86	D+	59-64
В	79-82	D	55-58
B-	75-78	D-	51-54
F	0 - 50		

Any student listed in the course after March 27 can only receive a grade of A-F.

Any student who stops attending class after taking the first test will receive a grade F for all the missed tests, unless such student withdraws from the course.

I will only assign IN grades in extraordinary cases when unexpected conditions prevent a student from completing the course within the term of enrollment. An IN grade must be removed at the earliest possible time.

The following rules apply to all the exams and classes of this course:

- 1. Be sure to bring two number 2 (#2) pencils, an eraser, and your <u>valid UT student</u> <u>ID card</u> to an examination.
- 2. Examinations start and end at specified times. Under no circumstances will students be admitted to an exam, which has been in progress for longer than 10 minutes. *Additional time will not be given to students who come late or the exams*.

- 3. All the examinations must be taken at the scheduled time with the section for which you are officially registered.
- 4. Please be considerate of your fellow students. During the time of an examination, quiet is to be maintained at all times. If you have to talk to someone about something, please do it outside the room after the exam is taken. Violaters of this rule will have their exams taken and will receive an F grade for that exam.
- 5. If the University is closed on a day scheduled for a test, your test will be given during the next time class is held.
- 6. **I DO NOT GIVE MAKE-UP TESTS**. If you miss a test, that test wil be counted as your lowest scoring test and dropped from your final score. If you know in advance that you must legitimately miss a test, see me to schedule an early test.
- 7. You will be provided with an answer key upon the return of your test during class. Errors in grading should be brought to my attention within one week of the time you receive your corrected examination.

8. Please use good judgment with cell phones and pagers – turn off ringers and don't take calls while in class.

9. If you have a certifiable problem in taking timed tests or if your native language is not English and you still rely on a translation dictionary, please notify me with your name, student number, and a certifiable explanation of your problem before the end of the first week's lecture. You may take the tests with no time limit and/or dictionary access at the Student Testing Center (GH1004C).

Office hours:

I will be available during those times to answer questions.

Pointers to success:

- 1. Attend all of the classes, take notes, and keep up with the readings.
- 2. Read the text actively take your own notes as you read to summarize concepts.
- 3. Study the material regularly and do not wait until the night before class.
- 4. Look over your notes and understand the concepts. If you have a good memory that helps, but it is much easier to understand a concept than to memorize the entire textbook. If you do not understand something, ask questions during class or come to my office during office hours.
- 5. Test yourself. Try the discussion questions at the end of every chapter and/or in the study guide.
- 6. Establish a study group. Students learn a lot by explaining to other students. Also that way, if you miss a lecture, you will have a source for notes.

Topics covered:

Topics will be covered in the sequence listed below. The relevant chapters in the textbook are also listed.

<u>Topic</u>	<u>Chapter</u>
Introduction/ The Chemistry of Life	2
Macromolecules and the Origin of Life	3
Cells: The Working Units of Life	4
The Dynamic Cell Membrane	5
Energy, Enzymes and Metabolism	6
Pathways that Harvest Chemical Energy	° 7
Photosynthesis: Energy from Sunlight	8
Chromosomes, Cell Cycle, and Cell Division	9
Genetics: Mendel and Beyond	10
DNA and its Role in Heredity	11
From DNA to Protein: Genotype to Phenotype	12
The Eukaryotic Genome and its Expression	14
Recombinant DNA and Biotechnology	16

Policy Statement on Academic Dishonesty

Academic dishonesty will not be tolerated. Among the aims of education are the acquisition of knowledge and development of the skills necessary for success in any profession. Activities inconsistent with these aims will not be permitted. Students are responsible for knowing what constitutes academic dishonesty. If students are uncertain about what constitutes plagiarism or cheating they should seek the instructor's advice. Examples of academic dishonesty include, but are not limited to:

- Plagiarizing or representing the words, ideas or information of another person as one's own and not offering proper documentation;
- Giving or receiving, prior to an examination, any unauthorized information concerning the content of that examination;
- Referring to or displaying any unauthorized materials inside or outside of the examination room during the course of an examination;
- Communicating during an examination in any manner with any unauthorized person concerning the examination or any part of it;
- Giving or receiving substantive aid during the course of an examination;
- Commencing an examination before the stipulated time or continuing to work on an examination after the announced conclusion of the examination period;
- Taking, converting, concealing, defacing, damaging or destroying any property related to the preparation or completion of assignments, research or examination;
- Submitting the same written work to fulfill the requirements for more than one course.

While academic integrity is particularly the responsibility of the student, the faculty members also have a responsibility. Assignments and tests should be constructed and proctored so as to discourage academic dishonesty. Faculty members are expected to inform their students explicitly as to what materials and procedures are authorized for use in the preparation of assignments or in examinations (e.g., the use of calculator, computer, text materials, etc.). Should cases of academic dishonesty be found among students, the instructor may choose to counsel the student, or the following sanctions may be imposed:

- The student may be assigned an F for the work in question.
- The student may be assigned an F for the course. In this case the instructor should inform the Dean and the student of this action. The Dean will make certain that the student receives the F grade and is not permitted to withdraw from the course.
- The student may be placed on probation or suspended for some definite period of time, dismissed or expelled by the Dean if either the seriousness of the offense or a record of repeated offenses warrants it. A notation that such a sanction has been imposed will be made part of the student's permanent record. It is expected that the Dean will consult with the instructor and the student in making such a judgment, and that the Dean will notify the student of the sanction imposed and of the appeals procedure.

A student found to be academically dishonest by a faculty member may appeal according to procedures approved by the respective colleges. The procedures for making a final appeal to the Student Grievance Committee may be found in the Student Handbook.



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DATE	TOPIC	CHAPTER
Jan. 13	Introduction / Syllabus	2
Jan. 15	Macromolecules and the Origin of Life	3
Jan. 20	Macromolecules and the Origin of Life	3
Jan. 22	Cells: The Working Units of Life	4
Jan. 27	Cells: The Working Units of Life	4
Jan. 29	The Dynamic Cell Membrane	5
Feb. 3	The Dynamic Cell Membrane	5
Feb. 5	EXAM 1	
Feb. 10	Energy, Enzymes & Metabolism	6
Feb. 12	Energy, Enzymes & Metabolism	6
Feb. 17	Pathways that Harvest Chemical Energy	7
Feb. 19	Pathways that Harvest Chemical Energy	7
Feb. 24	Photosynthesis: Energy from Sunlight	8
Feb. 26	EXAM 2	
Mar. 3	Chromosomes, Cell Cycle, and Cell Division	9
Mar. 5	Chromosomes, Cell Cycle, and Cell Division	9
Mar. 10	SPRING BREAK	
Mar. 12	SPRING BREAK	
Mar. 17	Chromosomes, Cell Cycle, and Cell Division	9
Mar. 19	Genetics: Mendel and Beyond	10
Mar. 24	Genetics. Mendel and Beyond	10
<u>Mar. 26</u>	EXAM 3	
Mar. 31	DNA and it's Role in Heredity	11
Apr. 2	DNA and it's Role in Heredity	11
Apr. 7	From DNA to Protein: Genotype to Phenotype	12
Apr. 9	From DNA to Protein: Genotype to Phenotype	12
Apr. 14	From DNA to Protein: Genotype to Phenotype	12
<u>Apr. 16</u>	EXAM 4	
Apr. 21	The Eukaryotic Genome and it's Expression	14
Apr. 23	The Eukaryotic Genome and it's Expression	14
Apr. 28	Recombinant DNA and Biotechnology	16
Apr. 30	REVIEW	
May 6	FINAL EXAM	

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