

Biology 140 - Organization and Function of the Cell

Sections 001, 002, 003, 004, 005

Course Information and Lecture Schedule - Fall 2009

Instructor: Morvarid Soltani-Bejnood, Ph.D.

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Please place **BIO140** in the subject line, as well as your **name and section number** at the end of the message. I delete e-mails without opening them if **BIO 140** is not in the subject line.

Office Hours: M/W - after class / by appointment, in room 126, Neyland Biology Annex (NBA).

Lectures: Science and Engineering (SE) room 307, MWF 10:10-11:00 AM

Text: 'LIFE, The Science of Biology' 8th ed. by Sadava, Heller, Orians, Purves, and Hillis [Sinauer / Freeman Publishers]

Website: Blackboard site: <http://online.utk.edu>

The lecture material and all of your scores, including the total lab points, will be posted on the grade sheet of the combined sections 'Bio 140 Lecture Fa09'.

Labs: Labs meet in the Neyland Biology Annex (NBA) beginning Tuesday August 25. You must attend the section (in the correct room and at the correct time) for which you are registered. **Lab coats** are required. **All of the questions / concerns about lab sessions should be addressed to Dr. Randy Brewton (rbrewton@utk.edu) at the NBA office.**

Lab Manual: Introduction to Basic Laboratory Skills for the Biological Sciences – An Experimental Approach, by O. J. Schwarz. This text must be purchased new.

Policies: Students must be prepared when they come to class. You must read the book and the lecture material (ppt slides, chapter outline) **before** attending class.

Attendance in lab sessions is mandatory. There are **no make-up labs**, and you will not receive credit for assignments and quizzes missed. Communicate with your lab instructor regarding questions concerning weekly lab assignments.

Disability Services: If you need accommodations because of a documented disability, or if you have questions or concerns about disabilities, please contact the Office of Disability Services (2227 Dunford Hall) at 974-6087.

Academic dishonesty of any sort will not be tolerated. You are expected to abide by The University of Tennessee honor statement in Biology 140 and in all of your university activities.

"An essential feature of The University of Tennessee is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity." (Page 12 in Hilltopics, the UT Student Handbook)

Grading: Your grade in Biology 140 will be determined as follows:

<u>Lecture</u>	* Three exams (E1, E2, and E3)	135 points each exam
	* Lecture Quizzes (LQs)	105 points
	* Final Comprehensive Exam (CE)	240 points

<u>Lab</u>	(See Lab Instructor for breakdown)	<u>250 points</u>
		1000 points

<u>Final Grades:</u>	900 – 1000	points: A
	870 – 899.99	points: B+
	800 – 869.99	points: B
	770 – 799.99	points: C+
	700 – 769.99	points: C
	600 – 699.99	points: D
	000 – 599.99	points: F

Exams: Exams are given as scheduled. There are **NO make up exams**. **ALL** of the lecture exams and quizzes will count toward your final score, and **NONE** of them will be replaced or dropped.

Exams (E1-3) consist of 45 multiple-choice questions; each question is worth 3 points.

The final exam consists of 80 multiple-choice questions covering **ALL** of the chapters taught in this course; each question is worth 3 points. These questions are randomly selected from the entire course as a whole, rather than from each chapter separately.

For each test, students must write the following information:

- Name (as it appears on Blackboard)	}	on the question sheet
- Name (as it appears on Blackboard)		}
- The test version		
- The section number		

Both the question **AND** answer sheets must be submitted at the end of the test. The test will not be graded (a score of zero will be given) if the test version reported on the scantron does not match the one on the submitted question sheet, or if the question sheet is missing.

Missed Test: If you have a **valid and documented** excuse for not taking the first test at the regular time, notify me by e-mail ASAP or on the exam day at the latest. Your final comprehensive exam (CE)'s score will be used to determine a score for the missed test. Without a **written notice and proof** of your excuse, no score will be given to a missed test. Only **ONE** missed exam's score can be replaced and any other missed test will have no score. The final comprehensive exam **MUST** be taken at the regular time.

Quizzes: Lecture Quizzes consist of questions given during each lecture or posted on Blackboard. Sometimes, you will be asked to read one specific chapter of your book or to search for Biology-related information in the news, and to write a report about what you have learned. This fall, we will meet 42 times, out of which 3 sessions are scheduled for taking a test. Out of the remaining sessions, a total of 35 quizzes/reports must be submitted. Each quiz or report is worth 3 points. Submitting these reports is indicative of your attendance, and you cannot submit a make-up report if you did not attend the class. Signing the syllabus agreement on the first day of class is mandatory.

No other assignment / extra credit will be given.

Biology 140 - Fall 2009

Class Schedule

<u>Date</u>	<u>Topic</u>	<u>Relevant Readings</u>
Aug. 19 (W)	Introduction / Overview of Cell Biology	Chapter 1
Aug. 21 (F)	Overview of Cell Biology	Chapters 1 / 2
Aug. 24 (M)	Atoms and Molecules	Chapter 2
Aug. 26 (W)	Chemical Bonds in Biology	Chapter 2
Aug. 28 (F)	Water / pH	Chapters 2 / 3
Aug. 31 (M)	Biological Macromolecules	Chapter 3
Sept. 2 (W)	Proteins	Chapter 3
Sept. 4 (F)	Carbohydrates / Lipids	Chapter 3
Sept. 7 (M)	Labor Day – No Classes	
Sept. 9 (W)	Nucleic Acids / Origin of Life	Chapters 3 / 4
Sept. 11 (F)	Prokaryotic and Eukaryotic Cells	Chapter 4
Sept. 14 (M)	Cell Organelles / Origins of Cells	Chapter 4
Sept. 16 (W)	Cytoskeleton / Membrane	Chapters 4 / 5
Sept. 18 (F)	Membrane Structure	Chapter 5
Sept. 21 (M)	Membrane Function	Chapter 5
Sept. 23 (W)	Transport	Chapter 5
Sept. 25 (F)	Viruses	Chapter 13
Sept. 28 (M)	Prokaryotes	Chapter 13
Sept. 30 (W)	Overflow / Review	
Oct. 2 (F)	EXAM 1	Chapters 1 – 5, and 13
Oct. 5 (M)	Introduction to Metabolism / Thermodynamics	Chapter 6
Oct. 7 (W)	Enzymes	Chapter 6

Oct. 9 (F)	Harvesting Energy / Glycolysis	Chapters 6 / 7
Oct. 12 (M)	Krebs Cycle / Electron Transport Chain	Chapter 7
Oct. 14 (W)	Metabolic Pathways	Chapter 7 / 9
Oct. 16 (F)	Fall Break – No Classes	
Oct. 19 (M)	Cell Division	Chapter 9
Oct. 21 (W)	Mitosis	Chapter 9
Oct. 23 (F)	Meiosis	Chapters 9 / 11
Oct. 26 (M)	DNA Structure / Replication	Chapter 11
Oct. 28 (W)	Replication / Transcription	Chapters 11 / 12
Oct. 30 (F)	Transcription / Translation	Chapter 12
Nov. 2 (M)	Translation / Mutation	Chapter 12
Nov. 4 (W)	EXAM 2	Chapters 6-7-9-11-12
Nov. 6 (F)	Gene Expression	Chapter 14
Nov. 9 (M)	Post -Transcriptional / -Translational Modifications	Chapter 14
Nov. 11 (W)	Control of Gene Expression	Chapter 14
Nov. 13 (F)	DNA Technologies	Chapter 16
Nov. 16 (M)	Cloning / Transgenic Organisms	Chapter 16
Nov. 18 (W)	Prion – Triplet Repeat - Polymorphism	Chapter 16 / 17
Nov. 20 (F)	Cancer / Proteomics / Systems Biology	Chapter 17
Nov. 23 (M)	Human Genome Project / Review	Chapter 17
Nov. 25 (W)	EXAM 3	Chapters 14 – 16 – 17
Nov. 27 (F)	Thanksgiving Holiday – No Classes	
Nov. 30 (M)	Last Class – Review	
Dec. 9 (W)	FINAL COMPREHENSIVE EXAM 10:15 a.m.–12:15 p.m. in SE room 307	