

Syllabus, BIOS 100, Fall 2004, Section 13580

Instructor: Michael Muller	Course Description: Processes of cellular and organismic function: cell structure, respiration
Phone: 312-996-3476	photosynthesis, molecular genetics and development,
Email: mmuller@uic.edu	structure, and physiology of plants and animals.
Office: 3092 SEL	<u>Animals will be used in the laboratory</u>
Office Hours: W 1-4 pm	
Lecture: MWF 11:00 250 SES	
Website: www.uic.edu/classes/bios/bios100/indexf04am.htm	

Textbook Biological Sciences, 1st Edition. Freeman, 2002

Lab Manual: BIOS 100 Laboratory Manual. 1st Edition. Muller. 2005

Week	Dates	Topic	Readings in Freeman 1 st Ed.
1	Aug 23	Course Introduction, Science as a Process	1
	25	The Chemistry of Life I	2, 3.2, 4.1
	27	The Chemistry of Life II	2, 3.2, 4.1
2	30	Energy, ATP, and Enzymes I	2.3
	Sept 1	Energy, ATP, and Enzymes II	2.3
	3	Cells - Structure and Function I - Cell Structures	5
3	6	Labor Day - No Class	
	8	Cells - Structure and Function II - Organelles	5
	10	Cells - Structure and Function III - Membranes	4
4	13	Movement Across Membranes	4
	15	Exam 1 - Covers Weeks 1-3 and Sept 13	7
	17	Photosynthesis I	7
5	20	Photosynthesis II	7
	22	Photosynthesis III	7, 28.3
	24	Respiration and Fermentation I	6
6	27	Respiration and Fermentation II	6
	29	Respiration and Fermentation III	6
	Oct 1	DNA - the Molecule of Heredity	12
7	4	Protein Synthesis I	13
	6	Protein Synthesis II	13
	8	Genetic Control of Prokaryotes and Eukarotes I	14, 15
8	11	Genetic Control of Prokaryotes and Eukarotes II	14, 15
	13	Mitosis	8
	15	Meiosis	9
9	18	Review for Exam II - optional class	
	20	Exam II - Covers Weeks 4-8	
	22	Plant Biology - The Plant Body	31

10	25	Plant Biology - Plant Anatomy	31
	27	Transport in Plants	32
	29	Plant Diversity and Reproduction I	28, 36
11	Nov 1	Plant Diversity and Reproduction II	28, 36
	3	Plant Nutrition	33
	5	Exam III - Covers Weeks 9-11	
12	8	The Circulatory and Respiratory System I	41
	10	The Circulatory and Respiratory System II	41
	12	The Digestive System	40
13	15	The Urinary System	39
	17	The Endocrine System & Nervous System I	42, 43, 44
	19	The Endocrine System & Nervous System I	42, 43, 44
14	22	The Immune System I	46
	24	The Immune System II	46
	26	Thanksgiving - No Class	
15	29	The Origin of Life I	2
	Dec 1	The Origin of Life II	2
	3	Exam IV - Covers Weeks 12 to 15 and Nov 5	
16		Final Exam - Thursday, Dec 9, 8:00 am 250 SES	

Note: I reserve the right to make changes on this syllabus. Any changes will be posted on the website and on Blackboard.

Grading

Points in BIOS 100 may be earned in both the laboratory and for lecture examinations. Each hourly examination is comprised of either 40 or 50 multiple-choice questions and is worth a total of 100 points (so questions will be worth either 2.5 or 3 points apiece, respectively). The final examination is optional - if you choose to take the final, we will drop the lowest exam score. Note that there is no penalty for taking the final examination - if this is your lowest score, we will drop the final examination score. If you miss one of the four hourly examinations, you must take the final examination. The final exam is cumulative and will contain all new questions, which could possibly kill me.

Points are also earned through the completion of laboratory exercises. There are 14 laboratory exercises, each worth 10 points. You will be allowed to drop your lowest laboratory grade. If you miss a lab, you will be allowed to make it up only during the week in which it is offered. No makeups will be allowed after the labs are taken down for the week!

There will also be online “quizzes” on blackboard. These will appear to be worth a variable number of points, but we will scale these down to 30 points. You may take each quiz more than once, and we encourage you to do so. They are meant more as a review than as an actual method of assessment. You are not cheating if you take them more than once. Please do yourself a favor and take these - they are an easy way to earn 30 points and hopefully learn

something!

The final grade will be determined by the following grading scale:

500 - 560	A
450 - 499	B
400 - 449	C
350 - 399	D
0 - 349	E

These point levels are guarantees - for example, if you earn 450 points, you are guaranteed a B. I will never raise the grading scale. However, at the end of the semester, I *may* lower it. Please don't pester me too much about this - I won't know if the scale will move or not until the end of the semester.

All of your exam grades and laboratory exercise grades will be posted on the UIC Blackboard website (<http://blackboard.uic.edu>)

Laboratory Schedule for Fall, 2004 am Lecture

Week	Topic	Chapter
1	Techniques in Microscopy	2
2	Quantitative Techniques and Statistics	1
3	Determining the Properties of an Enzymes	5
4	Cellular Structure Reflects Function	3
5	Osmosis	6
6	Photosynthesis	13
7	Cellular Respiration	7
8	Properties of Biomolecules	4
9	Mitosis and Meiosis	8
10	Plant Anatomy	14
11	Plant Reproduction	15
12	Digestive, Gas Exchange, and Circulatory System	10 & 11
13	Excretory and Reproductive Systems	12
14	Thanksgiving - No Labs This Week!!!	
15	Paternity Determination in Whooping Cranes	9

Note: Some of the laboratories will be using stains and chemicals which can damage clothing, so please dress accordingly to laboratory. Neither UIC nor the Biology Department will assume any responsibility for damaged clothing. Also, there will be a fetal pig dissection during weeks 12 & 13. If you have religious or ethical objections to this, please contact Michael Muller as soon as possible. An alternate exercise will be assigned.