

Syllabus, BIOS 100, Fall 2005, Section 13579

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:	Tues 1-4 pm		
Lecture:	MWF 1:00 250 SES		
Website:	www.uic.edu/classes/bios/bios100/indexf05pm.htm		

Textbook: Biological Sciences, 2nd Edition. Freeman, 2005. (Butterfly on cover)
Lab Manual: BIOS 100 Laboratory Manual. 2nd Edition. Muller. 2005
Optional: Study Guide for Freeman, 2nd Edition
 Photographic Atlas for the Biology Laboratory Van de Graaf Crawley.

Week	Dates	Topic	Readings in Freeman 2 nd Edition	Readings in Freeman 1 st Edition
1	Aug 22	Course Introduction, Science as a Process	1	1
	24	The Chemistry of Life I	2, 3, 4, 5	2, 3.2, 4.1
	26	The Chemistry of Life II	2, 3, 4, 5	2, 3.2, 4.1
2	29	Energy, ATP, and Enzymes I	3.4	2.3
	31	Energy, ATP, and Enzymes II	3.4	2.3
	Sept 2	Cells - Structure and Function I - Cell Structures	7	5
3	5	Labor Day - No Class		
	7	Cells - Structure and Function II - Organelles	7	5
	9	Cells - Structure and Function III - Membranes	6, 7, 8	4
4	12	Movement Across Membranes	6, 8	4
	14	Exam 1 - Covers Weeks 1-3 and Sept 13		7
	16	Photosynthesis I	10	7
5	19	Photosynthesis II	10	7
	21	Photosynthesis III	10	7, 28.3
	23	Respiration and Fermentation I	9	6
6	26	Respiration and Fermentation II	9	6
	28	Respiration and Fermentation III	9	6
	30	DNA - the Molecule of Heredity	14	12
7	Oct 3	Protein Synthesis I	16	13
	5	Protein Synthesis II	16	13
	7	Genetic Control of Prokaryotes and Eukarotes I	15, 17	14, 15
8	10	Genetic Control of Prokaryotes and Eukarotes II	15, 18	14, 15
	12	Review for Exam II - optional class		
	14	Exam II - Covers Weeks 4-8		
9	17	Mitosis	11	8
	19	Meiosis	12	9
	21	Plant Biology - The Plant Body	35	31
10	24	Plant Biology - Plant Anatomy	35	31
	26	Transport in Plants	36	32
	28	Plant Diversity and Reproduction I	40	28, 36
11	31	Plant Diversity and Reproduction II	40	28, 36
	Nov 2	Plant Nutrition	37	33
	4	Exam III - Covers Weeks 9-11		

12	7	The Circulatory and Respiratory System I	44	41
	9	The Circulatory and Respiratory System II	44	41
	11	The Digestive System	43	40
13	14	The Urinary System	42	39
	16	The Endocrine System & Nervous System I	46, 47	42, 43, 44
	18	The Endocrine System & Nervous System I	46, 47	42, 43, 44
14	21	The Immune System I	49	46
	23	The Immune System II	49	46
	25	Thanksgiving - No Class		
15	28	Review		
	30	Exam IV - Covers Weeks 12 to 15 and Nov 5		
	Dec 2	Review, meditation, and reflection		
16		Final Exam - Monday, Dec 5th, 1:00 - 2:00 pm		

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

Laboratory Schedule for Fall, 2004 am Lecture

Week	Topic	Chapter
1	No Labs!	
2	Techniques in Microscopy	2
3	Quantitative Techniques and Statistics	1
4	Determining the Properties of an Enzymes	5
5	Cellular Structure Reflects Function	3
6	Osmosis	6
7	Photosynthesis	13
8	Cellular Respiration	7
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.

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 2 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 13 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 appropriately. 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! Also included in these 30 points are discretionary points. I may give pop quizzes in lecture and lab. Note that there are NO MAKEUPS for these. So, while you are human and may miss a class every now and then, there may be substantial penalties for missing class often.

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

500 - 550	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>) You are responsible for keeping track of your exam and laboratory grades!

Other Notes

Due to complications that have occurred in the past, I am forced to make the following clarifications

- In laboratory, you are frequently working in groups. However, all assignments are individual efforts, not group efforts. We encourage you to discuss your answers before hand, but all work submitted must be your own. If I suspect lab exercises were copied, all parties involved will receive zero credit. No discussion
- All laboratory assignments must be initialed by your TA before you leave. Assignments submitted without TA initials will receive zero credit
- We are not responsible for lost exam scantrons - if your scantron becomes lost, you will not receive a grade for that exam and must take the optional final. Life is hard and unfair.
- Blackboard is meant to be a place where you can find out your scores on labs and exams. However, it does not drop the lowest exam or labs, so if you want to know your score, you must do this. See, your math teacher was right, you will need to use this skill every now and then.
- Read the FAQ for answers to questions regarding grading before asking me. I can almost always guarantee that the answer you seek is there.