

**Syllabus, BIOS 100, Fall 2007, Section 13579**

<b>Instructor:</b>	Michael Muller	<b>Course Description:</b>	Processes of cellular and organismic function: cell structure, respiration
<b>Phone:</b>	312-996-3476		photosynthesis, molecular genetics and development,
<b>Email</b>	mmuller@uic.edu		structure, and physiology of plants and animals.
<b>Office:</b>	3092 SEL		<u>Animals will be used in the laboratory</u>
<b>Office Hours:</b>	Tues 2-4 pm		
<b>Lecture:</b>	MWF 1:00 250 SES		
<b>Website:</b>	www.uic.edu/classes/bios/bios100/indexf07pm.htm		

**Textbook:** Biological Sciences, 2<sup>nd</sup> Edition. Freeman, 2005. (Butterfly on cover)  
**Lab Manual:** BIOS 100 Laboratory Manual. 3<sup>rd</sup> Edition. Muller. 2007 (Snail on cover)  
**Optional:** Study Guide for Freeman, 2<sup>nd</sup> Edition  
 Photographic Atlas for the Biology Laboratory Van de Graaf Crawley.

Week	Dates	Topic	Readings in Freeman 2 <sup>nd</sup> Edition
1	Aug 27	Course Introduction, Science as a Process	1
	29	The Chemistry of Life I	2, 3, 4, 5
	31	The Chemistry of Life II	2, 3, 4, 5
2	Sept 3	<b>Labor Day - No Class</b>	
	5	Energy, ATP, and Enzymes I	3.4
	7	Cells - Structure and Function I - Cell Structures	7
3	10	Cells - Structure and Function II - Organelles	7
	12	Cells - Structure and Function III - Membranes	6, 7, 8
	14	Movement Across Membranes	6, 8
4	17	Signal Transduction and Membranes	8.3, 47.4
	19	<b>Exam 1 - Covers Weeks 1-3 and Sept 17</b>	
	21	Photosynthesis I	10
5	24	Photosynthesis II	10
	26	Photosynthesis III	10
	28	Respiration and Fermentation I	9
6	Oct 1	Respiration and Fermentation II	9
	3	Respiration and Fermentation III	9
	5	DNA - the Molecule of Heredity	14
7	8	Protein Synthesis I	16
	10	Protein Synthesis II	16
	12	Genetic Control of Prokaryotes and Eukarotes I	15, 17
8	15	Genetic Control of Prokaryotes and Eukarotes II	15, 18
	17	Techniques of Molecular Biology	19, 20
	19	<b>Exam II - Covers Weeks 4-8</b>	
9	22	Mitosis	11
	24	Meiosis	12
	26	Plant Biology - The Plant Body	35
10	29	Plant Biology - Plant Anatomy	35
	31	Transport in Plants	36
	Nov 2	Plant Diversity and Reproduction I	40
11	5	Plant Diversity and Reproduction II	40
	7	Plant Nutrition	37
	9	<b>Exam III - Covers Weeks 9-11</b>	

12	12	The Circulatory and Respiratory System I	44
	14	The Circulatory and Respiratory System II	44
	16	The Digestive System	43
13	19	The Urinary System	42
	21	The Endocrine System & Nervous System I	46, 47
	23	<b>Thanksgiving - No Class</b>	
14	26	The Endocrine System & Nervous System II	46, 47
	28	The Immune System I	49
	30	The Immune System II	49
15	3	Developmental Biology	48
	5	<b>Exam IV - Covers Weeks 12 to 15 and Nov 3</b>	
	7	Review, meditation, and reflection	
16		<b>Final Exam - Monday, Dec 10<sup>th</sup>, 1:00 - 2:00 pm</b>	

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, 2007 pm 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	Paternity Determination in Whooping Cranes	9
9	Mitosis and Meiosis **	8 **
10	Plant Anatomy **	14 **
11	Plant Reproduction **	15 **
12	Digestive, Gas Exchange, and Circulatory System **	10 & 11 **
13	<b>Thanksgiving - No Labs This Week!!!</b>	
14	Excretory and Reproductive Systems **	12 **
15	No Lab or Discussion This Week	

\*\* Labs in which Photographic Atlas for the Biology Laboratory Van de Graaf Crawley is useful

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 the course. 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 50 multiple-choice questions and is worth a total of 100 points (so questions will be worth 2 points apiece). There may be extra credit questions on the examination - however, each question will still be worth 2 points apiece (meaning you can possibly earn more than 100 points on an exam). 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!

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

450 - 520	A
400 - 449	B
350 - 399	C
300 - 349	D
0 - 299	E

These point levels are guarantees - for example, if you earn 430 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.
- You are ultimately responsible for keeping track of your grades. We are not held responsible for input errors into blackboard.
- Read the FAQ for answers to questions regarding grading before asking me. I can almost always guarantee that the answer you seek is there.