

**Syllabus, BIOS 100, Fall 2009, 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>	Mon 9-11 am	
<b>Lecture:</b>	MWF 1:00 250 SES	
<b>Website:</b>	www.uic.edu/classes/bios/bios100/indexf09mm.htm	
	blackboard.uic.edu	

**Textbook:** Biological Sciences, 3<sup>rd</sup> Edition. Freeman, 2008. (Octopus on cover)  
**Lab Manual:** BIOS 100 Laboratory Manual. 4<sup>th</sup> Edition. Muller. 2009 (Frogger on cover)  
**Gadget:** iClicker (must be registered online by the end of Week 2)  
**Optional:** Study Guide for Freeman, 3<sup>rd</sup> Edition  
 Photographic Atlas for the Biology Laboratory Van de Graaf Crawley.

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

12	9	The Circulatory and Respiratory System I	44
	11	The Circulatory and Respiratory System II	44
	13	The Digestive System	43
13	16	The Urinary System	42
	18	The Endocrine System & Nervous System I	46, 47
	20	The Endocrine System & Nervous System II	46, 47
14	23	The Immune System I	49
	25	The Immune System II	49
	27	<b>Thanksgiving - No Class</b>	
15	30	Developmental Biology	48
	Dec 2	<b>Exam IV - Covers Weeks 12 to 15</b>	
	4	Review, meditation, and reflection	
16	7	<b>Final Exam - Monday, Dec 7<sup>th</sup>, 1:00-1:50 pm</b>	

\* Last day to drop and receive a W on your transcript

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, 2009 pm Lecture

Week	Topic	Chapter
1	No Lab this week, but there WILL be Discussion this Week	
2	Techniques in Microscopy	2
3	Quantitative Techniques and Statistics	1
4	Cellular Structure Reflects Function **	3 **
5	Determining the Properties of an Enzymes	5
6	Photosynthesis **	13 **
7	Cellular Respiration	7
8	Osmosis	6
9	Mitosis and Meiosis **	8 **
10	Paternity Testing in Whooping Cranes	9
11	Plant Anatomy **	14 **
12	Plant Reproduction **	15 **
13	Digestive, Gas Exchange, and Circulatory System **	10 & 11 **
14	<b>Thanksgiving - No Labs This Week!!!</b>	
15	Excretory and Reproductive Systems **	12 **

\*\* 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 the discussion section, laboratory, participation in iClicker exercises in lecture, and from lecture examinations. Each hourly examination is comprised of 40-50 multiple-choice questions and each is worth a total of 100 points. The final examination is optional - if you choose to take the final, we will drop the lowest exam score. If you do not take the final, all of your exam scores will count. 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 discussion and laboratory exercises. There are 13 discussion exercises, each worth 5 points apiece, and 13 laboratory exercises, each worth 10 points. You will be allowed to drop your lowest discussion and laboratory grade. If you miss a lab, you will be allowed to make it up only during the week in which it is offered. You must inform your TA and your instructor if you are making up a discussion and/or lab. No makeups will be allowed after the labs are taken down for the week!

You will also be able to earn points through participation in iClicker exercises. You MUST buy and register your iClicker online by the end of week two (Sept 4). Grades from these exercises will be posted on blackboard. If you forget your iClicker or your iClicker is malfunctioning, you will have to take a zero for that day. There are multiple iClicker drops so missing a couple won't hurt your grade in the least. If there is a problem with iClicker grading, you have a week after the grades are initially posted to report them to me. After that time is up, there is nothing I can do. You can earn a total of 20 points from clicker exercises

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

530 - 600	A
450 - 529	B
390 - 449	C
320 - 389	D
0 - 319	E

These point levels are guarantees - for example, if you earn 480 points, you are guaranteed a B. I will never raise the grading scale. This scale will NOT be moved in any ways, so don't ask about it. Also, please notice that the grades are in points, not percentages.

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!

Students with disabilities who require accommodations for access or participation in this course must be registered with the Office of Disability Services (ODS) contact: 312-413-2183(voice) or 312-413-0123(TTY).

### **Academic Dishonesty Policy:**

Any student caught copying others' work on an assignment or exam or cheating in any other way will receive a zero for that assignment or exam and will be referred to the Student Judicial Affairs Committee, the Department Chair and/or Dean. Be sure to give proper attribution when using others' work in laboratory assignments.

### **Lecture Capture:**

We will be using a new system to capture instructor presentations and make them available to students. These materials must NOT be put up on any other public venue by students (putting them on personal equipment, such as your personal iPod, is fine). Students must sign a form agreeing to this prior to accessing the captured files.

NOTE: We reserve the right to make changes in this syllabus. Any changes will be announced in lecture or posted on Blackboard. Coming to class will be important for keeping current on if and how the syllabus changes.

### **Other Notes**

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

- In discussion and 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 even suspect lab exercises were copied, all parties involved will receive zero credit. End of discussion
- All discussion and 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. Greater emphasis will be given to any disputes if they are presented in a timely manner. You MUST keep track of your clicker points - if you come up to me at the end of the semester and say that you haven't received any clicker points, you won't.
- If you are acting suspicious during an exam, the TA's or I will move you. If you continue to act suspicious, we will take your exam, you will receive a zero, and you will be reported to the student judiciary council.
- Read the FAQ for answers to questions regarding grading before asking me. I can almost always guarantee that the answer you seek is there.