

BIO 100 LABORATORY SYLLABUS

Spring 2012

HOSCI Lab 300

Section A – Monday 1:15-4:15pm; Section B- Thursday 12:45-3:45pm

Instructor: Amy Musselman

Office Hours: by appointment

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LAB OBJECTIVES

- To familiarize the student with basic laboratory apparatus and initiate the development of correct and safe laboratory techniques.
- To reinforce concepts and/or demonstrate the practical application of some of the biology principles introduced in class.
- To encourage the student to develop skill in observation, interpretation, application and presentation of scientific results.

ATTENDANCE

Each student is expected to take an active role in performing each of the lab exercises offered. In order to meet this requirement it is necessary that the student arrive for laboratory on time and remain engaged in the work until the scheduled lab period ends. If the student arrives late, leaves early, or appears disengaged from the effort of the group it is customary to reduce the student's score on that exercise relative to that received by the other members of the group. The amount of this reduction is at the discretion of the instructor and will depend upon the degree to which the student's absence or lack of engagement impacts the work of the group.

Please let me know in advance, if possible, if you are going to be absent from lab. It is *your* responsibility to notify me if you will be away for a field trip, sporting event, or other school-related function. If you are sick, please email me on the day you are absent. Students who miss a laboratory for any reason will be expected to make up the work within one week of the student's return to class. If the work is not made up within one week of the student's return to class, a grade of zero will be awarded for that exercise.

GENERAL

Students will work in groups assigned at the laboratory instructor's discretion. There is no laboratory manual for this course. Materials outlining the exercise to be performed on a given day will be provided. Students are required to bring a bound notebook and pen to each lab.

LAB CONDUCT

There is to be *NO* food or drink or cell phones in the lab!!!!

LAB REPORTS – Due next lab session

- Do not include the questions in your report. Brief answers are sufficient.
- Use "we", not "I" in a *group* report.
- Include the title, date, and the name(s) of your group members on first page.
- Every member of the group must initial the report, indicating that they are satisfied with it and agree to its contents.
- The lowest lab report grade will be dropped if student has attended and participated in lab or has an excused absence. (in other words, one cannot skip a lab and then drop it)

LAB GRADES (~ 35% of Final Grade)

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|---|----------|
| • Laboratory Reports/Exercises (20pts each) | 220 pts. |
| • Laboratory Notebook | 30 pts. |
| ○ Title/date, purpose, data for each lab | |
| • Laboratory Final | 50 pts. |

Notebooks will be returned to the student during the final exam after the student completes the lecture questions. The 50 point lab portion will be open lab notebook!

ACADEMIC HONESTY

I expect all class members to adhere to the Moravian College policy on academic honesty (please see **Student Handbook**). If dishonesty is observed on a student's exam, a course grade of an F will be assigned and the individual will not be allowed to withdrawal from the course. If dishonesty is observed on an assignment, the student will receive a zero for that assignment.

LABORATORY SAFETY

Students are expected to conduct themselves in an intelligent and orderly manner at all times in the laboratory. Disregard for sensible safety measures will result in dismissal from the laboratory. In particular, the following points are to be observed:

- Students will perform only those experiments assigned or otherwise bearing the prior approval of the laboratory instructor.
- Each student must provide his or her own safety glasses which include side shields for protection from flying debris. Appropriate eyewear is available for sale in the College Bookstore, but you're welcome to obtain them elsewhere if you think you can find a better deal. Eye protection is to be worn over the eyes *at all times* when working in the laboratory.
- Shoes or other footwear that attach securely to the feet and cover the toes are to be worn at all times in the laboratory. Bare feet, stocking feet, flip-flops, sandals and shoes that leave the toes exposed are inappropriate and an invitation to injury.
- Eating, drinking, smoking and applying cosmetics are prohibited in the laboratory at all times. If necessary, these activities must be pursued outside the laboratory. No laboratory apparatus or glassware is ever to be used in connection therewith. At no time shall any food or drink be brought into the laboratory.
- Each student is responsible for the cleanliness of his or her own area, including the adjacent sink. No solids are to be discarded into the sink. Use one of the trash cans. Broken glassware and other sharps are to be disposed of in the container indicated for such. Any hazardous materials, as identified in the lab handout or by the lab instructor, are to be disposed of in the special receptacles provided.
- To reduce clutter, all bookbags and other student possessions should be stored under lab benches.
- All pipetting is to be done with a mechanical suction device provided for that purpose. There is to be *no pipetting by mouth*.
- If somebody near you is doing something dangerous or in a careless fashion, gently bring it to his or her attention. If the behavior persists, inform the instructor. This may make you unpopular but will reduce your chance of injury due to somebody else's negligence.

LABORATORY SCHEDULE		<u>M- Section A</u>	<u>R- Section B</u>
	Lab orientation/safety; Scientific method	Jan 16	Jan 19
1	Biomolecules	Jan 23	Jan 26
2	Microscopy	Jan 30	Feb 2
3	Plants & photosynthesis	Feb 6	Feb 9
4	Cellular respiration	Feb 13	Feb 16
5	DNA	Feb 20	Feb 23
6	Mitosis/Meiosis	Feb 27	Mar 1
SPRING BREAK			
7	Genetics	Mar 12	Mar 15
8	Nervous system	Mar 19	Mar 22
9	Evolution	Mar 26	Mar 29
10	Life's diversification	Apr 2	Apr 5
EASTER HOLIDAY			
11	Animals/Plants/Bacteria	Apr 16	Apr 12
12	Owl Pellets	Apr 23	Apr 19

Lab notebooks and last lab report are due by Thursday, April 26 in HOSCI 212!