

Your lab instructor's name _____ and email _____

Lab Coordinator: Maggie Tucker, Room 2012 Science Hall ax6019@wayne.edu

What is important about taking and participating in lab for BIO 1510? The purpose of the lab is to:

- provide you with a more hands-on experience to learn about important concepts in biology
- give you an opportunity to better understand the nature and process of scientific inquiry
- introduce you to some basic scientific techniques, equipment and procedures
- divide the class into smaller groups for more individualized/small group instruction & interaction
- allow for alternative assessment options, like lab reports, in addition to traditional testing

Read the lab exercise(s) and complete the pre-lab homework (HW) on Canvas before attending lab!

The questions will come from the Overview/Introduction and the Procedures (see pages listed) for the lab you are doing that week, interpreting results from the lab that you completed the previous week, and/or support materials posted on Canvas.

<u>Lab</u>	<u>Dates</u>	<u>HW</u>	<u>Exercise Title</u>	<u>Pages/Location</u>
0	8/28-30	no HW	NO LAB MEETING; Homework Assignment #1 Assigned – Reading and Reviewing a Scientific Article (on Canvas) – due next week during lab ; first on-line homework due Friday, Sept. 6	
1	9/2-6	HW1	First lab meeting (meet your lab instructor, review syllabus) Review Lab Attendance & Participation and Safety & Dress Code Discovery Science Lab * Assignment due this week: Read and Review a Scientific Paper	Canvas p. ix-x and Canvas p. 1-12 p. 163 & Canvas
2	9/9-13	HW2	Biomolecules – Carbohydrates ☆☆ report #1 ☆☆ (outline due next week)	p. 13-30
3	9/16-20	HW3	Biomolecules – Amino Acids *	p. 31-42
4	9/23-27	HW4	Enzymes ☆☆ report #1 ☆☆ (outline due next week)	p. 45-60
5	9/30-10/4	HW5	ELISA Immuno Explorer * (Carbohydrates lab due)	Canvas and p. 61-67
6	10/7-11	☛	Lab Exam #1 (Labs from weeks 1-5; exam policy on back)	
7	10/14-18	HW6	Through the Microscope & Prokaryotic Cells * (Enzymes lab due)	p. 69-100
8	10/21-25	HW7	Cellular Respiration ☆☆ report #2 ☆☆ (due week of 11/11)	p. 101-114
9	10/28-11/1	HW8	Photosynthesis ☆☆ report #2 ☆☆ (due week of 11/18)	p. 115-128
10	11/4-8	HW9	Cell Reproduction, DNA Extraction, PCR & Electrophoresis – week 1	p. 129-140 & Canvas
11	11/11-15	HW10	Cell Reproduction, DNA Extraction, PCR & Electrophoresis – week 2 *	p. 129-132 & Canvas
12	11/18-22	HW11	Introduction to Meiosis & Genetics and Theory of Heredity * (due week of 12/2)	p. 133-156
13	11/25-29	*** No Lab Meetings - Tues. 11/26 & Wed. 11/27; No Classes -- Thurs/Fri Thanksgiving 11/28 & 11/29***		
14	12/2-6	☛	Lab Exam #2 (Labs from weeks 7-12; exam policy on back)	

Required Materials: *BIO 1510 Laboratory Manual, Fall 2019 edition* (bookstore)
Biology, 12th edition, Raven & Johnson (bookstore)

The BIO 1510 lab is covered by policies as stated in the course syllabus. For information about SDS accommodations, plagiarism and cheating, and other course policies, please refer to the course syllabus. SDS accommodations must be approved by the lab coordinator.

Additional lab policies and grading can be found on the back side of this syllabus

Assignments, Policies and Grading - No Extra Credit

Weekly Lab Activity: You receive 2 points for each completed lab activity for a maximum of 16 points. You will receive credit for attending lab on time, actively participating in the lab activity **AND** clean up! Points will be deducted for coming to lab late, leaving before the lab is completed and/or not cleaning up sufficiently. The lab coordinator reserves the right to deduct participation points from any lab that is not cleaned up according to the clean up checklist. Any disruptive student will not be allowed to remain in class. Any student excused from lab may not return to lab until the next weekly class period and will lose their points for that week's lab.

You are expected to attend the lab you have registered for. We understand that occasionally there are emergencies or other good reasons to miss a lab. We want you to have the lab experience so we will allow you to make up the lab in the same week if possible. **If you miss a lab**, you may be able to make it up **if you contact your lab instructor in a timely fashion**. Otherwise, there are no make ups for labs.

Weekly On-line Homework (HW): Each homework is composed of questions worth various points for a total of 7 points. The homeworks will be posted in Canvas and will be open for one week. Questions are from the introductory material in the lab manual **AND** from the previous week's lab(s). You may use the lab manual. Since you could potentially earn 77 points, but there is a maximum of 60 for this portion of the lab, no make ups will be allowed. **READ** the introduction to the weekly homeworks (more details) on Canvas.

Mini Lab Reports: Mini reports can be completed for any three of the labs marked with a ✱. These will consist of a brief introduction (examples in Canvas), the results from the lab and the questions/discussion at the end of the lab (in the manual) or a handout. They must be completed and turned in to your lab instructor **the next week**. No late reports will be accepted. You may only do reports for labs you attended. The same plagiarism policy for lab reports applies to mini-labs (see below).

Lab Reports: Lab reports must be written on labs marked ☆☆. An outline draft of report #1 is due one week after the lab is performed. **Late outline drafts and electronic copies will not be accepted.** Each Lab Report is due at the student's regular lab meeting three weeks after the lab is performed. Lab reports will not be accepted via email. Late lab reports may be accepted but will incur a **loss of 5 points per day** (including weekends and holidays). A student must attend the lab and perform all of the activities for which any report is written! Any students plagiarizing (this includes the copier and the student whose report is copied from) will receive no credit for this assignment! More information on reports and plagiarism in the lab manual. University policy on plagiarism and cheating: <https://doso.wayne.edu/conduct/academic-misconduct>

Lab Exams: Makeups or rescheduling may be allowed for **emergencies only**. For non-catastrophic issues, students will be expected to take a **makeup within 24 hours** of their regularly scheduled exam. Permission from the **lab coordinator** is required for an extension. A makeup may be permitted only if **both of the following** occur:

1. Your lab instructor **AND** lab coordinator must be notified of the reason for your absence within 24 hours of your lab meeting. Email your lab instructor **AND** lab coordinator directly. Print your email to provide proof of the day and time of your email in case it is lost in cyberspace. If you do not receive a response within 12 hours, it is your responsibility to make additional contact before the 24 hour time limit expires.
2. Proper **formal written documentation** (medical billing, obituary, accident report, etc.) explaining your absence must be given to the **lab coordinator** within 2 days of the missed lab.

Assignments and Grading (see schedule on front side of syllabus for due dates)

Weekly Lab Activity, 11 @ 2 pts (drop 3 lowest)	16 pts
Weekly Homeworks, 11 @ 7 pts (maximum 60 points; HW12a & 12b cannot be dropped)	60 pts
How to Read a Scientific Paper (due the second week of lab)	6 pts
Mini Lab Reports (Intro, Results & Discussion, Question pages from lab manual or handout; 3 @ 6 points each)	18 pts
Lab Report Outline Draft (report #1 only)	10 pts
Lab Reports (#1 = Enzymes or Carbohydrates; #2 = Respiration or Photosynthesis; 2 @ 20 points each)	40 pts
Lab Exam 1 & 2 (43 points for Exam #1; 47 points for Exam #2)	90 pts
Scientific Argumentation activity	10 pts
Total	250 pts

Any discussion or disagreement regarding any lab or lecture score must be clarified with the lab instructor **within 7 days** of that assignment. After that the score will not be changed. If the scores are not posted in Canvas in a timely fashion, please contact the lab coordinator.

Any student whose lab or lecture answer sheet is altered in any manner and turned in for a regrade or correction will receive a score of zero (0) for that assignment/test. Such students will not be allowed to withdraw. You are responsible for your answer sheet. Whether you or another student alters it, you are responsible for it.