

Lab Instructor name _____ email _____

Lab Coordinator: Michelle Serreyn, 2012 Science Hall

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What is important about taking and participating in lab for BIO 1500? 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 on-line homework (HW) on Canvas before attending lab.**This will help you to understand the major points of each exercise and operate most efficiently in the lab time available**

| Lab | Dates | HW | Dolphin Lab Manual Section |
|---|-----------|------|---|
| 1 | 5/8-5/10 | HW1 | FIRST LAB MEETING – meet lab instructor, review syllabus (on Canvas), assign homework #17 - Characteristics of Seed Plants – Angiosperms only (pp. 49-51 & 56-60) #25 - Pollination, Development and Dispersal Reading Assignment #1 assigned - Reading and Reviewing a Scientific Article (on Canvas) |
| 2 | 5/15-5/17 | HW2 | #23 - Plant Cells and Tissues Reading Assignment #1 due – Reading and Reviewing a Scientific Article Begin Lab Activity #1: Factors affecting seed germination (handout/Canvas) |
| 3 | 5/22-5/24 | HW3 | #24 - Anatomy of Vascular Plants Follow-up Lab Activity #1: Factors affecting seed germination (bring seeds back!) |
| 4 | 5/29-5/31 | HW4 | #16 - Characteristics of Seedless Plants #17 – Characteristics of Seed Plants – Gymnosperms only (pp. 51-56) Report for Lab Activity #1 due – no late reports accepted |
| 5 | 6/5-6/7 | HW5 | #18 - Fungal Diversity & Symbiosis Comparative Paper #1 assigned – Compare and Contrast Plant Groups (on Canvas) |
| 6 | 6/12-6/14 | HW6 | #15 - Protists Comparative Paper #1 due |
| 7 | 6/19-6/21 | P1 | Practical 1 (labs 2-6) (format is fill in the blank and short answer) *** See policy regarding missed exams *** |
| 8 | 6/26-6/28 | HW7 | #19 - Basal to Bilateral Animals [Low Inverts] Lab Activity #2: Creating a phylogenetic tree - Caminalcules (handout/Canvas) |
| >7/4< Fourth of July: WEDNESDAY LAB & All Wednesday classes meet on Friday 7/6 | | | |
| 9 | 7/3-7/6 | HW8 | #20 - Lophotrochozoa – earthworm, clam and squid dissections Lab Activity Report #2 due –Caminalcules - no late reports accepted Reading and Reviewing a Scientific Article #2 assigned (on Canvas) |
| 10 | 7/10-7/12 | HW9 | #21 – Ecdysozoa – Arthropod externals only; Ascaris dissection #22 – Deuterostomes – sea star dissection Reading and Reviewing a Scientific Article #2 due |
| 11 | 7/17-7/19 | HW10 | Vertebrate Classes – MEET IN NATURAL HISTORY MUSEUM, BIOLOGICAL SCIENCES BUILDING Comparative Anatomy paper #2 assigned – Compare and Contrast assigned groups (on Canvas) |
| 12 | 7/24-7/26 | HW11 | #22 - Deuterostomes – lancelet slide and perch dissection Vertebrate Anatomy – rat dissection #47 – External #48 - Internal Organs #49 - Uro(genital – basics only) & Circulatory Systems Comparative Paper #2 due – no late papers accepted |
| 13 | 7/31-8/2 | P2 | Practical 2 (labs 8-12) (format is fill in the blank and short answer) *** See policy regarding missed exams *** |

Required Materials: *Biology, 11th edition* Raven & Johnson (bookstore)
Biological Investigations – WSU special, 2016-17 edition, Dolphin (bookstore)

Recommended: *Photo Atlas for Biology* VanDeGraff & Crawley (bookstore)

Grading & Rules - Absolutely No Extra Credit is Available!!

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|--|------------|
| 2 lab practicals, 60 & 55 pts. each (lab 7 & 13) | 115 |
| 11 weekly on-line homeworks, 6 points each, drop the lowest 3 | 48 |
| 11 weekly lab attendance/participation, 2 points each, drop the lowest 2 | 18 |
| 11 weekly in-class assignments, 6 points each, drop the lowest 2 | 54 |
| 2 laboratory reports (Seed Germination – 15 pts. & Caminalcules – 10 pts.) | 25 |
| Comparative Papers – Plants & Vertebrate Groups (2 papers, 10 pts. each) | 20 |
| Reading and Reviewing a Scientific Article (2 articles, 10 pts. each) | 20 |
| ----- | |
| Total Lab Points | 300 |

Laboratory Practicals (P): There are no rescheduling or make up opportunities for a missed practical, other than attending an alternate laboratory section earlier than or later than your regular lab session. This opportunity exists for extreme and dire emergencies only. For non-catastrophic issues, students are expected to take a makeup within 24 hours of their regularly scheduled exam. If your lab is the last one offered then you must be especially concerned about your health and/or commuting arrangements. **Thursday, June 21** is the absolute last day that Practical 1 will be given. **Thursday, August 2** is the absolute last day for Practical 2.

Any student missing his/her regular lab session for the practicals must contact his/her lab instructor and the lab coordinator for written permission to attend an alternate session to take the practical. Any student attending a lab section other than their regularly scheduled lab section must also fulfill **both** 1 and 2 below:

1. Your lab instructor **AND** the lab coordinator must be notified of the reason for your absence within 1 calendar day (24 hours) of your lab meeting. Call or email your lab instructor **AND** the lab coordinator directly. You must include your phone number for faster, more direct communication. You must print your email to provide documentation indicating the day and time of your communication 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 explaining your absence must be given to the lab coordinator within 2 days of the missed lab (medical billing, obituary, etc.). Photocopied or prescription pad excuse forms will not be accepted under any circumstances.

Laboratory Reports and Activities: There will be two lab reports due the week after the lab has been completed. Late lab reports may be accepted, but will incur a loss of 2 points each day. You must have attended the lab and performed all of the activities associated with the lab to get full credit. There will also be two reading assignments and two comparative paper assignments, due the week after they are assigned. Late assignments will be accepted but will incur a loss of 1 point for each day. **No electronic submissions will be accepted**. Any students plagiarizing (this can include the copier and the student whose report/paper is copied from) will receive no credit for this assignment! University policy on plagiarism and cheating: <http://doso.wayne.edu/academic-integrity.html>

Weekly On-line Homework (HW): Each week Tuesday at 8am (except for the first week), an on-line homework worth 6 points will be posted in Canvas. You will have until the following Tuesday to complete the assignment (see note in Canvas). You can do the assignment up to **four** times and Canvas will record your highest score. At the end of the term, the lowest three scores will be dropped. This will not be reflected in the total on Canvas but will be counted in the master grade spreadsheet. For questions about the on-line homeworks, use the Discussion Board forum or contact the lab coordinator (not your lab instructor!)

Weekly Lab Attendance and In-lab Worksheets: Students receive 6 points for completing the lab activities AND in-lab worksheet for a maximum of 48 points (11 worksheets x 6 points each minus the lowest 3 scores) and 2 points for attending/participating in lab for a maximum of 18 points (11 weeks x 2 points each minus the lowest 2). Students either receive points for doing all of the day's lab work/participation (including proper lab clean up!!) or 0 points for no work, incomplete work or leaving early. Students may miss some labs and still get the full 18 attendance points (see **dropped lab attendance/in-lab assignments** policy below). Students who attend all labs and complete all in-lab worksheets will still only get a maximum 18 attendance points and 48 in-lab worksheet points!

Dropped lab attendance/in-lab assignments covers absences including, but not limited to the following: emergency illness, accident (personal or vehicle), denied border crossing, religious holidays not listed on the University's calendar, faulty alarm clocks, power outage, student-scheduled appointments (medical, professional or personal). **If you miss a lab**, you may be able to make it up that same week **if you contact your lab instructor in a timely fashion**.

Any disruptive student or one not actively participating in the day's activities will not be allowed to remain in class under any circumstances. Any student excused from lab may not return to lab until the next weekly class period!

Any discussion or disagreement regarding any lab or lecture score must be clarified with the lab and/or lecture instructor within 7 days of the return of that assignment - after that is too late - the score cannot and will not be changed!

Any student whose lab or lecture answer sheet is altered in any manner and turned in for a regrade or correction will, at the least, receive a score of 0 (zero) for that assignment/test OR, at the most, receive a grade of F for the entire course. 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!

The BIO 1500 lab is also 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.