Bio 102 – Organismal Biology Laboratory Manual – Spring 2017 Edition Table of Contents

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Laboratory Syllabus – Spring 2017

Week #	Dates	Lab Title		
1	2/6 – 2/9	Lab 1 – Decomposition Project: Compost Columns		
2	2/13 – 2/16	Lab 2 – An Introduction to the Domain Bacteria: Bacterial Diversity		
3	2/20 – 2/23	Lab 3 – Taxonomy and the Protists		
4	2/27 – 3/2	Lab 4 – Kingdom Fungi		
5	3/6 – 3/9	Lab 5 – Kingdom Plantae – Vegetative Diversity, & Adopted Tree Phenology Project		
6	3/13 – 3/16	Lab 6 – Primary and Secondary Plant Growth		
7	3/20 – 3/23	Lab 7 – Alternation of Generations		
8	3/27 - 3/30	NO SCHEDULED LABS-SPRING BREAK		
9	4/3 – 4/6	Lab 8 – Plant Adaptations		
10	4/10 – 4/13	Lab 9 – Invertebrate Diversity		
11	4/17 – 4/20	NO SCHEDULED LABS-EASTER BREAK		
12	4/24 – 4/27	Lab 10 – Phylum Arthropoda: Anatomical Diversity and Cryptobiosis		
Weekend Minnesota Zoo Trips planned for Sunday, April 30 th and Sunday, May 7 th				
13	5/1 – 5/4	Lab 11 – Trail Blazing Termites: What Sensory Cues do Termites Use to Follow Trails?		
14	5/8 - 5/11	NO SCHEDULED LABS		
15	5/15 – 5/18	NO SCHEDULED LABS (Finals Week)		

Please come to lab PREPARED! Read the lab(s) before attending your lab section. It will be assumed that all students will show up to lab ON TIME and will have all due assignments COMPLETED by the beginning/end of lab.

Laboratory Rules and Safety

General Laboratory Rules

- 1. Attend the laboratory section for which you are registered. REMEMBER YOUR SECTION NUMBER. (See *Laboratory Absence and Make-Up Policies* section for details)
- 2. Read each exercise **BEFORE** you attend the laboratory (<u>Note: you will NOT meet for prelab</u> <u>lectures for this course</u>). This will insure that you know what is on the day's agenda. Be aware that some labs have prelab assignments that will be due at the beginning of the period.
- 3. Be on time and ready to begin class activities.
- 4. Begin your lab work only after the instructor has made announcements and given instructions. A good policy is to take notes right in the lab manual during the lab. This will help you understand procedures, modifications, and principles.
- 5. All students are expected to stay for the concluding activities/discussion at the end of each laboratory session.
- 6. Assignments are generally due at the beginning or end of the laboratory session; work that is submitted to your instructor or teaching assistant after that time will be worth no credit.
- 7. Cell phones and other message devices must be turned off during lecture and laboratory sessions.
- 8. Please handle the microscopes carefully. Do not manipulate the microscope-mounted digital cameras unless indicated by your laboratory instructor. Notify your instructor or TA if you notice anything broken or out of place.

Laboratory Safety

- 1. Food and drink are **NOT** allowed in the laboratory. This includes water and chewing gum.
- Keep your backpacks and other materials off the lab bench and the floor. Items brought into the
 lab should be kept in the lab bench drawers or under the tabletops along the side of the room.
 Only necessary lab materials (lab manual, notebook, calculator, textbook, etc.) should be on top
 of the bench space. Coats and other items may be kept outside of the lab. PLEASE MAKE
 SURE NOT TO LEAVE ANY VALUABLES UNATTENDED.
- 3. Closed-toed shoes must be worn at all times in the laboratory. Students wearing open-toed shoes will be asked to leave the lab and return with appropriate footwear.
- 4. Make note of the location of the eye wash station, fire extinguisher, fire blanket, and first aid kit.
- 5. Wear the necessary safety gear when appropriate. Ask your instructor what is necessary.
- 6. Pipetting must be done using the proper equipment.
- 7. Dispose of waste in the appropriate receptacle(s). If you are not sure, ask your instructor.
- 8. If you spill any solutions please let your instructor know immediately for proper clean up.
- 9. Return all solutions, equipment and materials to their original places when you and your group have completed the lab exercise(s).
- 10. Do not remove any equipment or materials from the laboratory.
- 10. Wash your hands with soap after you have completed the day's work.
- 11. Any incident or injuries **MUST** be reported to your lab instructor.

Laboratory Policies and Student Evaluation (Grades)

Laboratory Absence and Make-Up Policies

You **MUST** attend the lab section for which you are registered every week that the lab is in session. If you have a problem attending the section for which you are officially registered, please contact the Laboratory Coordinator, Ngawang Gonsar (*ngonsar@gustavus.edu*).

If you need to switch labs (make-up) for a week due to a prearranged activity (i.e. concert, athletic event, doctor appointment), you must make arrangements at least TWO DAYS in advance. To do so, contact the lab instructor of the section you are interested in attending to seek permission to sit in. In addition please contact your regular lab instructor to inform them of your plans.

In the event of an unexpected absence (i.e. illness, emergency), please contact your lab instructor at your **EARLIEST** convenience. All absences/switches due to unexpected problems will require verification. Verification includes doctor's note/slip from health services for illnesses, obituary card from funeral services, and so on. Please keep in mind that lab materials are removed from the lab at the end of the week to prepare for the upcoming week's lab. We may be limited in our ability to accommodate make-up requests.

Any prolonged absences or special circumstances requiring a make-up of a laboratory activity/assignment must be arranged through the Lab Coordinator and your instructor.

Student Evaluation (Grades)

There are lab assignments (9 @ 10 points/each; 2 @ 20 points.) and written reports (1 @ 50 and 1 @ 30 points/each) for a total of **210 lab points**. These points are added to your lecture points to determine your overall course grade. Instructors reserve the right to modify these assignments/points as necessary.