

## **COURSE INFORMATION**

### **CONCEPTS IN BIOLOGY (BIOL 1103L)**

#### **PRINCIPLE OBJECTIVES OF THE COURSE:**

Biology 1103L is a one-credit hour course which provides a hands-on exploration of topics relating to general principles of Biology. This laboratory course is specifically designed for the non-science student. An effort has been made to design labs which are directly applicable to daily life. The corresponding lecture course, BIOL 1103, is a pre-requisite or a co-requisite for BIOL 1103L. The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

BIOL 1103L, a Writing Intensive Lab Course, uses an inquiry-based approach in its curriculum. It features cooperative learning and combines the writing process and the scientific process to promote critical thinking skills. Students have the opportunity to design and test their own experiments within a general framework and with guidance from their GLA. The Writing Intensive aspect of this course closely follows the guidelines established by The University of Georgia's Writing Intensive Program (WIP). Our goal in following these guidelines is to help you become better writers in your own non-science academic fields; since writing and thinking are parallel cognitive (learning) processes. Writing engages individuals in the information being studied and therefore results in better retention of this subject material.

Upon completion of this laboratory course, students will gain an understanding of biological macro-molecules, bacterial drug-resistance, water quality assessment, molecular genetics and patterns of inheritance. There are several written pre-lab assignments that serve as an orientation to the laboratory topic for the week. Some of the labs involve written homework that is an extension and application of the material covered in the lab exercise.

#### **LAB PROGRAM COORDINATOR:**

Mrs. Kris Miller  
Office: Room 402, Biological Sciences Building  
Office Hours: By appointment – email or call  
Phone: (706) 542-1681  
E-Mail: [krmiller@uga.edu](mailto:krmiller@uga.edu)

#### **DATA COLLECTION SPECIALIST:**

Mrs. Davis  
Office: Room 403, Biological Sciences Building  
Phone: (706) 542-1684  
E-Mail: [yddavis1@uga.edu](mailto:yddavis1@uga.edu)

Please see Mrs. Davis with any concerns regarding enrollment, late add to the course, withdrawal from the course, taking or removing an Incomplete (I), and any other administrative concerns.

#### **BIOSCIENCE LEARNING CENTER:**

The Bioscience Learning Center (BLC) is located in **room 406 of the Biological Sciences Building**. This facility houses computers (both MAC and PC) for use by students enrolled in courses at UGA. All BLC computers are Internet connected. The BLC charges a small fee for printing (6¢ per page) and photocopying (11¢ per page) **and only accepts Bulldog Bucks for payment**. Desk copies of the lab manual, corresponding lecture course text, and photo atlases are on reserve in the BLC for student use. BLC hours are from 8:30 AM – 7:00 PM, Monday through Thursday; 8:30 AM – 5:00 PM, Friday. The BLC is closed on weekends.

#### **MATERIALS FOR LAB CLASSES:**

You may purchase your 1103 Lab Manual, "A Laboratory Manual for Concepts in Biology I" from either the University Bookstore or FTX (Baxter Street).

## **WWW ACCESS TO COURSE INFORMATION, SYLLABUS AND POLICIES:**

For your convenience, the Division of Biological Sciences has created a World-Wide Web page that provides you with immediate access to course information. A copy of the lab course syllabus, a list of assignment due dates and policy information is also included. Log in to eLC and choose BIOL 1103L from your courses listed to access information about this laboratory course.

## **DRESS CODE:**

Your legs must be completely covered (long pants or long skirt). Your feet must be completely covered (no open-toed or open-heeled shoes). Failure to comply with dress code will result in dismissal from lab and will be marked as an excused absence. You will be given one week to complete a make-up assignment. If the work is not completed in that time, you will have 21 points deducted from your total points for lab.

## **ATTENDANCE/TARDINESS:**

**\*Students who miss four labs at any point in the semester, any combination of excused or unexcused absences, will receive an F in the course.\***

Attendance is required for this class. Missing even one class means that you have missed a significant portion of the course. **DO NOT schedule any other appointments or activities during the time that you are scheduled to be in lab.**

**Missing labs with a valid excuse:** A “valid” excuse is one that is written, verifiable, and covers the date and time of your scheduled lab class. Oversleeping and job conflicts do not constitute acceptable excuses. Missing a lab with a valid excuse allows you to make-up the lab provided that you contact your lab instructor within **48 hours** of the absence. If you know in **advance** that you will miss a lab with a valid excuse, contact your GLA **before** the lab for reassignment to another lab period. Make-up assignments are due within one week of the missed lab and may include any or all of the following: completing the lab with a different section; submitting all homework, quizzes, or any other assignment associated with the missed lab; or completing an alternate assignment designated by the GLA or course instructor. Students who fail to complete the make-up work within one week will not receive credit for the lab exercise. ***You are responsible for all material and data presented and gathered in lab.*** Please note that any missed lab for a valid excuse will still be marked as an excused absence, even if you make up the lab in another lab section.

**Missing labs without a valid excuse:** For each lab that is missed without a valid excuse, students will automatically receive a **minimum** of a 21-point deduction from the lab point total, even if a lab is “worth” fewer points. If a lab is worth more than 21 points, then the full point total for that day will be deducted (this includes the standard 21-point deduction).

**Tardiness and leaving lab early without permission** are not tolerated in lab. Attendance will be taken at the beginning and the end of each lab. If you arrive for lab more than 10 minutes late you will be marked as absent with a valid excuse; you will be allowed to stay and complete the lab for that day and turn in work due that day. You may leave the lab early only with your instructor's permission. If you leave early without permission, you will be marked as absent without a valid excuse for that class even if you have completed all work for that day and will receive the standard 21-point deduction for a lab missed without a valid excuse.

Assignments are due in class on the days indicated on your syllabus or by your instructor. Each day that an assignment is late, you will lose 10% of the assignment's total point value.

Students who have missed four or more labs due to extenuating circumstances with valid documentation and wish to avoid a failing grade should withdraw from the course or request an Incomplete. After the midpoint in the semester, permission to withdraw must be obtained from Linda Edge (542-3564) in the Office of the Vice President for Student Affairs.

## **COURSE GRADES:**

There are 332 possible points for the semester, earned as outlined on the following page. There is no final exam for the lab course as your work is evaluated weekly. Final grades are based on your accumulated points and will be awarded as follows:

A (310+)	B+ (296-287)	C+ (262-253)	D (229-197)
A- (309-297)	B (286-277)	C (252-244)	F (196-0)
	B- (276-263)	C- (243-230)	

There will be no extra credit or bonus points given. Historically, students who attend their lab classes, prepare for lab on a weekly basis, and turn in all of their written work on time, earn good grades for their efforts.

#### **GRADES:**

You should keep a record of all your lab grades and save your graded papers until the end of the semester. **ANY COMPLAINT ABOUT A GRADE MUST BE BROUGHT TO YOUR GLA'S ATTENTION, IN WRITTEN FORM WITH A THOROUGH EXPLANATION AS TO WHY YOU DISAGREE WITH THE GRADE, WITHIN ONE WEEK OF THE GRADE BEING POSTED.** Under no circumstance will a grade be changed after the last day of classes.

#### **INCOMPLETES:**

The grade of Incomplete (I) is given to students who for reason of accident or illness who were unable to complete a segment of the course. In no case will an Incomplete be given as a means of avoiding a failing grade.

#### **ACADEMIC HONESTY:**

All academic work must meet the standards contained in "A Culture of Honesty." Students are responsible for informing themselves about those standards before performing any academic work. This information is available on-line at <http://www.uga.edu/honesty/>. Any form of academic dishonesty will be reported to the Office of the Vice President for Academic Affairs.

#### **GROUP WORK:**

Much of your laboratory experiences in BIOL 1103L will be based upon work completed in small groups. We encourage you to interact with your GLA and your classmates when completing your in-class work and your homework. However, you are expected to complete all written assignments by yourself (i.e. showing independent thought) unless otherwise directed by your GLA.

In the sciences, all co-authors on papers are held accountable for the accuracy and originality of the published work. Similarly, in lab assignments, when a student's name is on a group project, this implies that s/he takes responsibility for the accuracy and originality of the *entire* assignment (and also for any academic dishonesty that may have been involved).

Students often have difficulties determining how to demonstrate independent effort when they turn in a group assignment (i.e. "We all did the same thing so shouldn't the work that we turn in be the same?"). Please carefully read *Expectations about Group Work & Plagiarism*, located on eLC, under the link "Plagiarism." **You are responsible for being familiar with this document.** If you ever have a question about whether or not you have crossed the fine line between group work and independent work, ask your GLA for assistance **before** you hand in an assignment.

**OUTLINE of Labs and SUMMARY of Points**  
**BIOL 1103L – Spring 2010**

Week Of	Lab Topic	Points	Point Values
1/11	<b>Lab 1: Lab Policies and Procedures</b> <b>Writing in BIOL 1103L</b> <b>Begin Scientific Investigations</b> <b>Intro to Graphing</b>		
1/18	<b>Finish Lab 1 Scientific Investigations</b> <b>Chimp worksheet/graphing</b> <b>Intro to Enzymes and Standard curves</b>	<b>24</b>	<ul style="list-style-type: none"> <li>In Class: Chimp Worksheet (CW, 14 pts)</li> <li>Graphing Exercise due (G, 10 pts)</li> </ul>
1/25	<b>Lab 2: Carb Cutter I</b>	<b>34</b>	<ul style="list-style-type: none"> <li>Lab 2 Pre-Lab Questions due (P2, 29 pts)</li> <li>In Class: Objectives 1 and 2 experimental design (E2, 5 pts)</li> </ul>
2/1	<b>Lab 3: Carb Cutter II: Student Experiments</b>	<b>15.5</b>	<ul style="list-style-type: none"> <li>Lab 3 Pre-Lab Questions due (P3, 10.5 pts)</li> <li>In Class: Experimental design (E3, 5 pts)</li> </ul>
2/8	<b>Finish Lab 3</b> ❖ <i>Also, Bacteria Part I</i>		<ul style="list-style-type: none"> <li>In Class: discussion on how to write a letter/article with scientific content.</li> </ul>
2/15	<b>Lab 6: Antibiotic Resistance</b>	<b>33</b>	<ul style="list-style-type: none"> <li>Carb Blocker draft due (D1, 10 pts)</li> <li>Lab 6 Pre-Lab Questions due (P6, 20 pts)</li> <li>In Class: Experimental design (E6, 3 pts)</li> </ul>
2/22	<b>Lab 7: Finish Antibiotic Resistance</b>	<b>46</b>	<ul style="list-style-type: none"> <li>Antibiotic Pre-Lab Exercise due (P7, 20 pts)</li> <li>In Class: Write-up of Antibiotic Experiment with data (ANT, 6 pts)</li> <li>Carb Cutter article – Peer Review (PR1, 20 pts)</li> <li>In Class: Carb Cutter Peer Review Discussion</li> </ul>
3/1	<b>Lab 8: Case It! Investigator</b>	<b>39</b>	<ul style="list-style-type: none"> <li>Lab 8 Pre-Lab Questions due (P8, 9 pts)</li> <li>Carb Blocker final article due (LR1, 30 pts)</li> </ul>
3/8	<b>Spring Break</b>		<b>NO LABS THIS WEEK</b>
3/15	<b>Lab 8: Case it! Presentations</b>	<b>20</b>	<ul style="list-style-type: none"> <li>Case It! Presentations (PRES, 15 pts)</li> <li>Peer Review Case It Presentations (PR-CASE, 5 pts)</li> </ul>
3/22	<b>Lab 9: <i>C. elegans I</i>: The Creature from Beneath.</b>	<b>24</b>	<ul style="list-style-type: none"> <li>Lab 9 Pre-Lab Questions due (P9, 19 pts)</li> <li>In Class: Experimental design (E9, 5 pts)</li> </ul>
3/29	<b>Lab 10: <i>C. elegans II</i></b> , continue collecting data from <i>C.elegans</i> .	<b>23</b>	<ul style="list-style-type: none"> <li>Lab 10 Pre lab Questions due (P10, 18 pts)</li> <li>In Class: Experimental design (E10, 5 pts)</li> </ul>
4/5	<b>Lab 11: <i>C. elegans III</i></b> , continue collecting data from <i>C.elegans</i> .	<b>10</b>	<ul style="list-style-type: none"> <li><i>C. elegans</i> Summary Draft due (D2, 10 pts) (will include everything but final results)</li> </ul>
4/12	<b>Lab 4: Everybody Out of the Pool!</b> <i>Labs meet at Lake Herrick (Room 318) or Dudley Park/Oak St. (Room 320).</i>	<b>5</b>	<ul style="list-style-type: none"> <li>Lab 4 Pre-Lab Questions (P4, 5 pts)</li> </ul>
4/19	<b>Lab 5: Water Quality Presentations and Letter of Water Quality.</b> ▪ <i>Also, Bacteria Part II</i>	<b>58.5</b>	<ul style="list-style-type: none"> <li><i>C. elegans</i> summary final draft (LR2, 30 pts)</li> <li>Lab 5 Water Quality Presentations (WQP, 10 pts)</li> <li>In Class: Letter on Water Quality - Group work (LET, 10 pts)</li> <li>Peer Review WQP (PR-WQP, 5 pts)</li> <li>TA Evaluation #1 (TA EVAL #1, 3.5 pts)</li> </ul>

