

## **BIOL 1510: BIOLOGICAL PRINCIPLES I**

**Fall 2008**

***Tentative schedule for labs***

The labs will be held in room ESM G1 & G2. Check your registration for location. Labs begin the first week of classes (August 18, 2008).

### **BIOL 1510 Laboratory Policies**

1. The Biology 1510 lab manual will be available at the bookstore before labs begin. It is your responsibility to show up prepared. There will not be an elaborate introduction to each lab experiment, so you will need to read the protocols in advance of the labs.
2. **NO FOOD OR DRINK IN THE LAB!!!** This is not a request; it is against federal, state and institutional rules. Failure to comply will result in the submission of "F" as your lab grade for the semester.
3. **BE CONSIDERATE OF OTHER LAB SECTIONS.** Clean up your lab station after each lab and report any messes left behind previous lab sections to your TA.
4. **THERE ARE NO MAKE-UP LABS FOR UNEXCUSED ABSENCES!!!!** An unexcused lab will cost you 5% of your grade plus the lost 2% for a missed quiz, and since you have a quiz every time you are in lab it is to your advantage to (a) attend, (b) document your absence, (c) make arrangements in advance of any known absences for school or personal activities to make up the lab in another section. Documented absences can include: an illness of your own or within your family, schedule conflict with an obligation to an official organization, auto accident, etc. [FYI: Full-time students can be exempt from/rescheduled for jury duty with proof of full-time enrollment.]  
In the event that you miss a lab, or will need to be excused from a lab in advance of it, Dr. Rupal Thazhath should be contacted at [rupal.thazhath@biology.gatech.edu](mailto:rupal.thazhath@biology.gatech.edu), Brande Jones should be contacted at [brandejones@gatech.edu](mailto:brandejones@gatech.edu) or you may leave a message at the Biology main office: (404)-894-3700; 201 Cherry Emerson Building. There is no penalty for an excused absence.
5. **THERE IS ONLY ONE MAKE-UP QUIZ!!!!** If you miss a quiz due to an excused absence, then you will take a comprehensive make-up quiz during the week prior to the lab final, irrespective of the quiz you missed. This may sound unfair, but it will be an option available to everyone to prepare for the final exam and is no more difficult than any other quiz. This is the only way to ensure uniformity of grading and testing.
6. Be on time for lab. **THERE WILL BE A QUIZ IN LAB EVERY TIME YOU ATTEND, BEGINNING WITH THE "Scientific Inquiry" LAB (LAB 1).** The quiz is handed out exactly when class begins (at 10 minutes past the hour), and ends 15 minutes

later. Showing up 5 minutes late means you have only 10 minutes to take that quiz. Also, leaving lab early without the instructor's prior permission (the TA's) will result in a zero (0) grade for that lab's quiz.

7. Proper attire needs to be worn in lab. No open-toed shoes. **This is not a request. You will be sent home if you are wearing open toed shoes and will not be allowed to take the quiz.**

8. All injuries or accidents must be reported to the lab TA IMMEDIATELY.

9. The distribution of grades and the modes of assessment have been determined to provide you with a diverse set of opportunities to demonstrate your command of the course content and the scientific method.

- You will have 7 quizzes during the semester. Each is worth 8% of your lab grade. Your lowest quiz grade will be dropped, and the remaining quizzes will account for **48%** of your lab grade.
- The lab final is worth **20%** of your lab grade and is comprehensive.
- You will maintain a lab notebook, worth **32%** of your lab grade. You can use your lab notebook during the quizzes and the lab final exam.

**10. Plagiarism will not be tolerated.** Anything written in your lab report(s) that is not an original idea of yours must be referenced. Direct copying from the lab manual will result in a grade of "O" for that assignment. Your conduct in this class is expected to conform to the Georgia Tech Honor Code (<http://www.honor.gatech.edu>). Please familiarize yourself with its expectations and responsibilities.

### Quizzes

You will have a quiz each week in lab, and these are done to provide you with lots of feedback about your performance, and to minimize the length of introductory lectures during the lab period. These will require a significant amount of independent preparation before lab, but you will be given several examples of quizzes to guide you with your preparations. You will need to be conversant in the basic modes of experimental design since Biology is an experimental science. You may use your lab notebook during the quiz and during the lab final exam.

### Tentative schedule for labs

<b>Week</b>	<b>Lab</b>
<b>1</b> (August 18 - 22)	Introduction and Review
<b>2</b> (August 25 - 29 )	<i>Lab 1:</i> The process of scientific inquiry <i>Lab 2:</i> Data analysis and interpretation  <b>Practice Quiz</b>
<b>3</b> (September 1 - 5)	Official School Holiday- September 1st
<b>4</b> (September 8 - 12)	<i>Lab 3:</i> A window to the microscopic world <i>Lab 4:</i> Functions and properties of cells  <b>Quiz 1</b>
<b>5</b> (September 15 - 19)	<i>Lab 5:</i> Predator-Prey Interactions <b>OR</b> <i>Lab 6:</i> Identification of organic molecules (Dependent upon weather)  <b>Quiz 2</b>
<b>6</b> (September 22 - 26)	<i>Lab 5:</i> Predator-Prey Interactions <b>OR</b> <i>Lab 6:</i> Identification of organic molecules (Dependent upon weather)  <b>Quiz 3</b> <b>Turn in lab notebooks for lab notebook check</b>
<b>7</b> (September 29 – October 3)	<i>Lab 7:</i> Enzymes: function and factors that affect enzyme activity  <b>Quiz 4</b>
<b>8</b> (October 6 -10)	<i>Lab 8:</i> An introduction to biotechnology: Plasmids, molecular cloning and bacterial transformation  <b>Quiz 5</b>
<b>9</b> (October 13 -17)	Fall 2008 Student Recess
<b>10</b> (October 20 -24)	<b>Lab 9:</b> An introduction to biotechnology: Plasmid isolation and the use of restriction enzymes

	<b>Quiz 6</b>
<b>11</b> (October 27 – 31)	<p><b>Lab 10:</b> An introduction to biotechnology: Restriction enzymes (continued) and use of gel electrophoresis</p> <p><b>Lab 11:</b> An introduction to biotechnology: DNA amplification using PCR</p> <p><b>Quiz 7</b></p>
<b>12</b> (November 3 -7)	<p><b>Lab 11:</b> An introduction to biotechnology: DNA amplification using PCR (continued)</p> <p><b>Lab 12:</b> An introduction to biotechnology: PCR- continued/ Computer science and Biology: Bioinformatics</p> <p><b>Make-up quiz</b></p>
<b>13</b> (November 10 – 14)	No Scheduled Labs
<b>14</b> (November 17 – 21)	<b>Lab Final Exam; Lab notebook due at end of exam</b>
<b>15</b> (November 24 – 28)	School Holiday
<b>16</b> (December 1 – 5)	No Scheduled Labs