BIOL 1107L - Principles of Biology I Laboratory
Course Syllabus – Spring 2015

 Individuals with disabilities who need to request accommodations should contact the Disability Services Coordinator, Edgewater Hall 255, 678-466-5445, DisabilityResourceCenter@clayton.edu.

Course Description
Number and Title:
BIOL 1107L (CRN 20458, 20459, 20460, 204961) Principles of Biology I Laboratory

Credit Hours:
1.0 semester credit hours (0-3-1)

Catalog Description:
Laboratory accompanying BIOL1107, Principles of Biology I.

Co-requisites:
BIOL1107, Principles of Biology I.
Withdrawal from BIOL1107L requires withdrawal from BIOL1107 and withdrawal from BIOL1107 requires withdrawal from BIOL1107L.

Notebook Computer Requirement:
Each CSU student is required to have ready access throughout the semester to a notebook computer that meets faculty-approved hardware and software requirements for the student's academic program. Students will sign a statement attesting to such access. For further information on CSU's Official Notebook Computer Policy, please go to http://www.clayton.edu/hub/itpchoice/notebookcomputerpolicy.

Computer Skill Prerequisites:
- Able to use the computer’s operating system
- Able to access and send e-mail
- Able to use a web browser and search engine
- Able to use a word processing program and spreadsheet program for assignments as needed
- Able to install software as required for accessing course materials, including browser plug-ins such as Adobe Flash player, Adobe PDF reader, etc.
- Able to access Desire2Learn (D2L)
  - Student training videos and print materials can be found at http://www.clayton.edu/cid/d2lstudenttraining
  - You can gain access to Desire2Learn by signing into the SWAN portal and selecting “D2L” on the top right side. If you experience any difficulties with Desire2Learn, please e-mail or call The HUB at TheHub@mail.clayton.edu or (678) 466-HELP.
Students who do not have the required skills should go to the HUB and/or Student Software Support Services for training and help. Your instructor is not able to provide this training. Assignments may require use of your computer and an inability to complete an assignment due to a lack of the above (or other general computer issues) will not be an acceptable excuse.

**Computer/tablet and Cell Phone Policy:**
Laptop computers and tablets will not be used during lab. You will need internet access to download and print the lab protocol and worksheet before each class meeting. The use of laptop computers during lab is at the discretion of the instructor.

**Turn off all cell phones, pagers, tablets, etc. upon entering the classroom.** No electronic devices may be out or in use during laboratory class or exams. Cell phone use during class is disrespectful and distracting to the instructor and other students. Any student using their cell phone during class (ringing, talking, or sending/receiving text messages) may be asked to leave the class and forfeit his or her lab grade for that day.

**Student Learning Outcomes:**
**General education outcomes:** The following link provides the Clayton State University Core Curriculum outcomes (see Area D):
[http://www.clayton.edu/Portals/5/core_curriculum_outcomes_clayton.pdf](http://www.clayton.edu/Portals/5/core_curriculum_outcomes_clayton.pdf)

**Biology outcomes:**
BIOL1107L supports outcomes 1, 2, 4, and 5 of the biology major:
- Outcome 1. Knowledge of the basic principles of major fields of biology.
- Outcome 2. Mastery of a broad range of basic lab skills applicable to biology.
- Outcome 4. Ability to communicate orally and in writing in a clear concise manner.
- Outcome 5. Ability to collect, evaluate, and interpret scientific data, and employ critical thinking skills to solve problems in biological science and supporting fields.

**Teacher Education Standards:**
The content of this course syllabus correlates to education standards established by national and state education governing agencies, accrediting agencies and learned society/ professional education associations. Please refer to the course correlation matrices located at the following website: [http://www.clayton.edu/teachered/standardsoutcomes](http://www.clayton.edu/teachered/standardsoutcomes)
**Conceptual Framework:**
The mission of the Teacher Education Unit is to prepare professional educators who engage in *reflective practice* and who are *competent, caring, committed, collaborative, culturally responsive*, and prepared to teach diverse learners in an ever-changing society.

**Operation Study:** At Clayton State University, we expect and support high motivation and academic achievement. Look for Operation Study activities and programs this semester that are designed to enhance your academic success such as study sessions, study breaks, workshops, and opportunities to earn Study Bucks (for use in the University Bookstore) and other items.

**Instructor Information:**
**Dr. Diane Day (20458)**
Office: NBS 146  
Phone: (678) 466-4794  
Email: dianeday@clayton.edu  
Internet address: [http://faculty.clayton.edu/dday2](http://faculty.clayton.edu/dday2)  
Office hours: [http://faculty.clayton.edu/dday2](http://faculty.clayton.edu/dday2)

**Dr. Ann Showalter (CRN 20461)**
Office: NBS 161  
Phone: (678) 466-4771  
Email: AnnShowalter@clayton.edu  
Internet address: [http://faculty.clayton.edu/ashowalter](http://faculty.clayton.edu/ashowalter)  
Office hours: TBA

**Ms. Japhia Jacobo (CRN 20459, 20460)**
Office: Phone: (678) 466-  
E-mail: japhia.jacobo@gmail.com  
Internet Address:  
Office hours: TBA

**Class Meetings**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Section</th>
<th>Days</th>
<th>Times</th>
<th>Building</th>
<th>Room</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>20458</td>
<td>01</td>
<td>Mon</td>
<td>12:35 pm - 3:25 pm</td>
<td>NBS</td>
<td>123</td>
<td>Day</td>
</tr>
<tr>
<td>20459</td>
<td>02</td>
<td>Mon</td>
<td>8:00 am - 10:50 am</td>
<td>NBS</td>
<td>123</td>
<td>Jacobo</td>
</tr>
<tr>
<td>20460</td>
<td>03</td>
<td>Tues</td>
<td>8:15 am - 11:05 am</td>
<td>NBS</td>
<td>123</td>
<td>Jacobo</td>
</tr>
<tr>
<td>20461</td>
<td>04</td>
<td>Tues</td>
<td>11:15 am - 2:05 pm</td>
<td>NBS</td>
<td>123</td>
<td>Showalter</td>
</tr>
</tbody>
</table>
Textbook Information and Lab Supplies:
Required text: Custom lab manual available in the CSU bookstore.
Lab Supplies: Laboratory Notebook: Do NOT write in it until you’ve been to lab

Recommended supplies:
It is recommended that you bring colored pencils/markers/calculators to class because a number of laboratories require you to make a graph and calculate data

Evaluation:

<table>
<thead>
<tr>
<th>Item</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Lab Practical Exams @ 50 points</td>
<td>100</td>
</tr>
<tr>
<td>Lab reports, Quizzes, Pre-lab assignments, Class, Participation, lab notebook, &amp; other graded work</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
</tr>
</tbody>
</table>

Lab Report Information

Grading:
Your final grade will be determined as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 - 100%</td>
</tr>
<tr>
<td>B</td>
<td>80 – 89.999%</td>
</tr>
<tr>
<td>C</td>
<td>70 – 79.999%</td>
</tr>
<tr>
<td>D</td>
<td>60 – 69.999%</td>
</tr>
<tr>
<td>F</td>
<td>below 60%</td>
</tr>
</tbody>
</table>

Mid-term Progress Report:
Laboratory courses do not have a mid-term grade. Students may choose to withdraw from the course and receive a grade of "W." Students pursuing this option must fill out an official withdrawal form, available in the Office of the Registrar, or withdraw on-line using the Swan by mid-term, which occurs on March 6, 2015. Instructions for withdrawing are provided at this...
Pre-lab objectives must be completed before coming to lab.

<table>
<thead>
<tr>
<th>DATE</th>
<th>Lab</th>
<th>Materials</th>
</tr>
</thead>
</table>
| January 12| LABS BEGIN THIS WEEK  
DOWNLOAD LABORATORY MATERIALS FOR THE UPCOMING LABS  
Introduction & Lab Safety | Notebook  
Laptop computers |
| January 19| NO LAB THIS WEEK/MLK Day                                             |                                               |
| January 26| Scientific Investigation                                             | Scientific Investigation  
Protocol  
Pre-lab objectives  
Lab objectives Data sheets  
Notebook |
| February 2 | Modeling the Chemistry of Water                                     | Chemistry of Water  
Pre-lab objectives  
Worksheet  
Notebook |
| February 9 | Microscopes and Cells                                               | Microscopes and Cells  
Pre-lab objectives  
Lab objectives  
Notebook |
| February 16| Diffusion & Osmosis                                                 | Diffusion and Osmosis  
Pre-lab objectives Lab objectives Data sheets  
Lab report guidelines  
Lab report rubric  
You must print and turn in with lab report.  
Use the lab report guide to write a lab report.  
Notebook |
| February 23| Enzymes & Protein Folding                                           | Enzymes and Protein Folding  
Pre-lab objectives Lab objectives Data sheets  
Protein folding worksheet  
Notebook |
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Notes</th>
</tr>
</thead>
</table>
| March 2    | **Lab Practical I** <br>FRIDAY March 6th  LAST DAY TO WITHDRAW AND RECEIVE A “W” | LAB PRACTICAL 1: All labs prior to the midterm  
LAST DAY TO WITHDRAW AND RECEIVE A “W” |
| March 9    | SPRING BREAK – NO LABS                                               |                                                                     |
| March 16   | Cellular Respiration & Fermentation                                  | Cell Respiration & Fermentation  
*Pre-lab objectives*  
*Lab objectives*  
*Data sheets*  
*Lab hints*  
*Lab hints and diagrams*  
*Notebook* |
| March 23   | Photosynthesis                                                       | Photosynthesis  
*Pre-lab objectives*  
*Lab objectives*  
*Data sheets*  
*Lab hints*  
*Lab report guidelines*  
*Lab report rubric--Print*  
*and turn in with lab report. Use the lab report guide to write a lab report.*  
*Notebook* |
| March 30   | Mitosis and Meiosis                                                  | Mitosis and Meiosis  
*Mitosis review*  
*Pre-lab objectives*  
*Lab objectives*  
*Notebook* |
| April 6    | Corn Genetics                                                        | Corn genetics  
*Bring your textbook, lab manual, and a calculator to lab*  
*Pre-lab/Lab objectives*  
*Report sheet*  
*Notebook* |
| April 13   | DNA and Gene Expression; Molecular Biology                           | DNA and Gene Expression  
*Bring your textbook to lab*  
*Pre-lab*  
*DNA worksheet*  
*Gene expression worksheet*  
*Molecular Biology*  
*Pre-lab*  
*Worksheet*  
*Marker and plasmid map*  
*Notebook* |
<table>
<thead>
<tr>
<th>April 20</th>
<th>Lab Practical II</th>
<th>LAB PRACTICAL 2 (All labs since the midterm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 27</td>
<td>Make up snow days</td>
<td></td>
</tr>
</tbody>
</table>

*This schedule is tentative and may change.*

Changes or additions to this syllabus, including reading, exam schedule, grading, and course policies can be made at the discretion of the instructor at any time.

CLASSROOM REGULATIONS AND POLICIES:

Students must abide by policies in the Clayton State University Student Handbook, and the Basic Undergraduate Student Responsibilities.

1. **Attendance is required.** Attendance will be taken at the beginning of each lab period. Students who enter the lab after attendance has been taken will be considered tardy. Entering lab late is considered by the university as disruption of the classroom environment. People who are chronically late will be turned in for disruption of class. If you are absent from a lab, you are still responsible for the missed material for exams, quizzes, notebook, lab report, etc. You cannot get any points for any work pertaining to the lab that was missed (quizzes, assignments, etc). Students who do not attend regularly generally do not do well in the course. **If you miss three or more laboratory classes, you will receive an Institutional Withdrawal.**

2. **Students with a valid excuse may attend another lab section with permission of both instructors.** This is only available to those students who have a valid, written excuse. The only absences that are excusable are for illness (requiring a doctor’s note), accident (requiring note from the police), and legal reasons (requiring a note from the judge), Clayton State athletic event (must be verified by the coach/athletic director) and work obligations outside of the ordinary (requiring a note from your boss). The following are examples of absences that are NOT excusable: travel (including leaving for break early or coming back late) or any type of appointment (doctor, dental, eye, etc. You know when your class meets, don't make an appointment during that time).

3. **Exams start at the beginning of class.** The instructor may permit a student to begin late if the excuse is reasonable. Students who are more than 10 minutes late will not be allowed to begin the exam. **There are no make-up exams.** With a valid excuse (see #2 above) you may attend another section with the permission of both instructors. All students are required to take exam 2.

4. **Quizzes may be given at the beginning of class.** Students who are late must remain outside of the classroom until the quiz is finished and will receive a grade of zero. There are no make-up quizzes. A quiz may be based on your attendance on a particular day. Quizzes, including attendance quizzes, may be unannounced. Some quizzes may be given on D2L.

5. **Assignments are due at the beginning of class.** No exceptions. Assignments may be turned in up to 24 hours late for half credit. Beginning of lab means at the time lab starts, not 5 minutes after lab starts. **You cannot turn in assignments from a lab you missed.**
you have a written excuse from a competent authority (doctor, judge, etc.), the missed points for the laboratory will not count against you. See #2 above for acceptable excuses. Printing problems are not an acceptable excuse for submitting work late.

6. **Keeping a lab notebook is required.** For each lab you are responsible for completion of the pre-lab and post-lab objectives in your notebook. Pre-lab objectives should be completed for that week's lab *prior to coming to lab*. Post-lab objectives should be begun during the current lab and finished at home and should be in the lab notebook by the following lab period. Lab notebooks will be checked for completion. You are responsible for printing the pre- and post-lab objectives and bringing them to lab each week. The notebooks will be excellent study guides for the practical exams.

7. **No talking while the instructor or another student is talking.** Students repeatedly violating this policy will be asked to leave the classroom for being disruptive.

8. **Computers are for note-taking, research, or other class related activities only.** Students using them for surfing the internet, checking email, playing games, etc., will be asked to turn them off. On subsequent offenses, the student may be asked to leave the classroom for being disruptive.

9. **Visitors are not permitted without the instructor's permission.** Children are not allowed in the classroom at anytime.

10. **No form of academic dishonesty will be tolerated in this course.** The most common forms are cheating and plagiarism, but any type of activity that is considered dishonest by reasonable standards will constitute academic dishonesty. The minimum penalty is a grade of zero on the work involved. The maximum penalty is expulsion from the university. Be aware that students found in violation of the university’s academic dishonesty code have lost scholarships, athletic eligibility, and/or their U.S. student visa (if an international student). All forms of academic dishonesty will be reported to the Office of Student Affairs for investigation. Judicial procedures are described at [http://adminservices.clayton.edu/judicial/](http://adminservices.clayton.edu/judicial/).

    Cheating/plagiarism in any form will not be tolerated; all work that you turn in must be in your own words and must be your own work. You may work in groups in the lab; however, all work turned in must be your own. You may not copy from you partner. If your brainpower did not generate what you turn in, it is considered cheating. Falsifying data from an experiment, copying the work of another person, allowing another person to do your assignment, allowing another student to copy your work, working in a group on a graded item, copying or closely paraphrasing referenced sources or another person, using anything buy you brainpower on an exam, quiz, lab practical, lab report, etc.

11. **No form of disruptive behavior will be tolerated in this class.** While a variety of behaviors can be disruptive in a classroom setting, more serious examples include consistently entering late and leaving early, belligerent, abusive, profane, and/or threatening behavior. A student who fails to respond to reasonable faculty direction regarding classroom behavior and/or is found to be repeatedly disruptive while participating in classroom activities may be dismissed from class. A student who is dismissed is entitled to due process and will be afforded such rights as soon as possible following dismissal. If found in violation, a student may be administratively withdrawn and may receive a grade of WF. A more detailed description of examples of disruptive behavior and appeal procedures is provided at: [http://www.clayton.edu/Portals/5/DisruptiveClassroomBehavior.pdf](http://www.clayton.edu/Portals/5/DisruptiveClassroomBehavior.pdf)
Students dismissed from a lesson will leave the classroom immediately or may be subject to additional penalties. Dismissed students are responsible for any course material or assignments missed. Students dismissed from a course have the right to appeal the dismissal to the department head responsible for the course. Appeals beyond the department head may also be pursued. If no appeal is made or the appeal is unsuccessful, the student will receive a grade of WF (withdrawal – failing) regardless of the current grade in the course.

Conditions attributed to physical or psychological disabilities are not considered as a legitimate excuse for disruptive behavior.

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