

# BIOL 2107L: PRINCIPLES OF BIOLOGY I LABORATORY (Fall 2014) COURSE SYLLABUS

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Biology Lecturer

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**Office:** E-103 Crawford Laboratory Building  
**Office Hours:** MWF 9:00-10:00am  
Th 10:00am-Noon, or by appointment

*Feel free to stop by my office at any time. If I am not busy, I will be happy to speak with you!*

**Course Web Page (Desire2Learn):** <https://spsu2.view.usg.edu/>  
**Student D2L Support:** <http://spsu.edu/d2l/student/index.htm>

## Course Description & Learning Outcomes:

This lab corresponds with BIOL 2107 lecture. This course focuses on major concepts addressed in lecture, including plant and animal cell structure and division, biochemical processes such as enzyme activity and osmosis, Mendelian and population genetics, and DNA manipulation and analysis. Skills to be developed include making scientific observations, performing experiments, and generating and interpreting data.

*Student learning outcomes will be:*

- (1) Learn how to use a microscope in order to explore cell structures and replication;
- (2) Perform biochemical experiments to investigate cellular processes;
- (3) Develop lab skills pertaining to the manipulation and analysis of DNA;
- (4) Set up and analyze experiments to observe the principles of Mendelian and population genetics.

**Co-requisite course:** BIOL 2107

**Required Textbook:** *Laboratory Manual for Principles of Biology I (5<sup>th</sup> ed.)* by Burnett, Beach, and Sugalski (ISBN: 978-1-937435-59-2)

**Credit Hours:** 1

**Meeting Times:** E172B: 2:00-4:50 pm M (Section 53)  
E172B: 8:00-10:50 am T (Section 52)

## Evaluation:

Evaluation for the class will be based on your performance (completeness and accuracy) on weekly handouts that are to be completed during lab. Your grade for this

course will be the average of your grades on these lab handouts (NONE will be dropped).

**Grading Scale:** *out of 100 %*

**A** = 90 – 100%

**B** = 80 – 89.4%

**C** = 70 – 79.4%

**D** = 60 – 69.4%

**F** = below 60%

## LAB

### Weekly Graded Lab Assignments

- Each week, you will be required to complete a lab handout (found in your required lab manual) that **MUST** be turned in before you leave lab that week. Your overall lab grade will be based on your performance on those lab handouts.
- You must review each week's laboratory **BEFORE** coming to lab. This will allow the lab to go more smoothly, prevent confusion, and facilitate overall lab efficiency.

### Attendance Policy

- Attendance of laboratories is mandatory. Absence from lab means that you will not be able to complete the weekly handout, resulting in a 0 for that week. Only **SERIOUS** medical conditions and games for SPSU sports teams will be considered an "excused" absence. **A physician MUST provide written confirmation of the illness, and must include a contact telephone number.** Documentation is also required for sports-related absences, and is required 1 week in advance. **Excused absences from lab MUST BE MADE UP and can only be utilized once during a semester.**
- If you are more than 10 minutes late to lab, you will not be permitted to take part in that lab (I mean it!), which will count as an unexcused absence, nor will you be able to make-up that lab. You are granted 1 tardiness warning.

### Late Work

- Due to the time, effort, and resources involved, lab exercises **MAY NOT** be made up unless approved **prior** to the missed lab. The student will receive a grade of zero for missed lab assignments.

### Review the lab exercises before you arrive!

- The better prepared you are before you get to lab, the more effective you will be after you get there. Students who read the exercises before class tend to (1) get started quicker, (2) have fewer procedural questions, (3) be more organized, and (4) finish their work more quickly.

### Honesty:

- SPSU has an Honor Code and a procedure for handling cases when academic misconduct is alleged. All students should be aware of them. Information about

the Honor Code and the misconduct procedure may be found at <http://www.spsu.edu/honorcode/>.

- All work must be your own! If you are caught cheating on any graded assignment you will receive an F for the **entire course**. An F grade issued for academic dishonesty cannot be converted to a W.

**Learning Disabilities:**

- If you have a documented disability as described by the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) that may require you to need assistance attaining accessibility to instructional content to meet course requirements, we recommend that you contact the ATTIC at (678) 915-7361 as soon as possible. It is then your responsibility to contact and meet with your instructor. The ATTIC can assist you and the instructor in formulating a reasonable accommodation plan and provide support in developing appropriate accommodations for your disability. Course requirements will not be waived but accommodations will be made, when appropriate, to assist you to meet the requirements.
- I MUST receive a copy of the completed 'Faculty Accommodation Form' from the ATTIC before I provide any class accommodations.

**TENTATIVE LAB SCHEDULE\***

WEEK #	WEEK OF	TOPIC	Lab #
1	8/11	No lab	
2	8/18	No lab	
3	8/25	Light Microscopy	1
4	9/1	No lab	
5	9/8	Enzymes and the Scientific Method	2
6	9/15	Cell Structure	4
7	9/22	Diffusion and Osmosis	3
8	9/29	Glucose Metabolism	7
9	10/6	Fruit Fly Genetics (Setup)	5
10	10/13	Plant and Animal Mitosis Fruit Fly Genetics (One week after setup)	8 5
11	10/20	Fruit Fly Genetics (Two weeks after setup)	5
12	10/27	Principles of Agarose Gel Electrophoresis Fruit Fly Genetics (Three weeks after setup)	10 5
13	11/3	DNA Restriction Analysis	11
14	11/10	Evaluating Genetic Crosses	9
15	11/17	Population Genetics	12
16	11/24	<b>Thanksgiving Break (no labs)</b>	

**\*lab schedule is subject to change**

**IMPORTANT DATES TO REMEMBER:**

August 18: Last Day to Add/Drop

September 1: Labor Day Holiday (No Classes)

September 3: Engagement Reports Due

September 29: Midterm Grades Due

October 2: Last Day to Withdraw with a "W"

November 26-28: Thanksgiving Holiday

December 1: Last Day of Classes