

Spring 2014: Biology 205L Cellular Biology I Laboratory

Instructor: Dr. F. Kandel

Class Meetings: Wednesday, 2:30-5:20 pm, Henry Lab2

Office Hours: by appointment

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Required Text:

1. *Symbiosis: Pearson Custom Library for the Biological Sciences, Bio 205L Lab Manual*. . Pearson Publishing.
2. *Biology 205 Lab Manual*

Course Description and Objectives:

- See Lab Manual

Grading:

| | |
|----------------------------|----------------|
| 2 Exams | 50% (25% each) |
| Lab Report | 20% |
| Assignments | 20% |
| Lab notebook | 5% |
| Attendance & Participation | 5% |

Makeup examinations/quizzes and extra credit:

Makeup examinations are **NOT** given unless a student has a valid excuse. Extra credit assignments are **NOT** given.

Attendance:

Presence in lab is necessary in order for a student to fully grasp concepts and applications. Absences beyond one unexcused (instructor's prerogative) will result in a reduction of the course grade. It is possible, and encouraged, that you make up any missed labs. There are other 205 labs offered. If you find it necessary to miss a lab inform your instructor and ask one of the other 205L instructors if it is possible to make it up in their section.

Laboratory Notebook:

- Lab notebooks should be bound with non-tear out pages. Spiral notebooks and three-hole folder paper is unacceptable.
- The lab notebook will be **randomly** checked throughout the semester.
- Notebooks should contain notes taken for each individual lab, data (drawings, tables, etc.) obtained from completing that lab and conclusions that can be drawn from the data.
- Your lab notebook should include the answers to the review questions at the end of each exercise assigned as "additional reading" and the answers to all questions asked in your lab manual
- See Lab Manual for format and further details

Laboratory Reports:

- Experimental data for the lab reports may be shared, as we will be doing the experiments together in class. However, the write up, all analysis and interpretations as well as tables, graphs, and figures must be done individually.
- See Lab Manual for format(s) and further details
- Additional handouts regarding format and grading will be provided.

Miscellaneous:

- Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from the CUH Counseling Center (Dr. June Yasuhara; phone 735-4845) by the end of week three of the class, in order for the instructor to plan accordingly. Failure to provide written documentation will prevent your instructor from making the necessary accommodations. Please refer any questions to the Dean of Students and review the procedures at http://www.chaminade.edu/student_life/sss/counseling_services.php.
- Academic dishonesty including cheating, plagiarism, and other serious offenses will not be tolerated. Appropriate action will be taken.
- Electronic devices: The use of cellular phones/text messaging is prohibited while in class. Laptops may be used to take notes but are not to be used for other purposes such as web browsing, text messaging, or working on anything else not related to class. This is a university-wide policy and the use of such devices during lecture time is disrespectful to the lecturer and neighboring students.

Course outline:

| Week | Date | Topic |
|------|-----------|--|
| 1 | 1/15/2014 | Introduction to lab and microscopy |
| 2 | 1/22/2014 | Qualitative chemical tests |
| 3 | 1/29/2014 | Quantitative chemical tests |
| 4 | 2/5/2014 | Scientific method: Bacteriology |
| 5 | 2/12/2014 | Scientific method: Bacteriology (part 2) |
| 6 | 2/19/2014 | Diffusion/osmosis |
| 7 | 2/26/2014 | Confocal microscopy/histology |
| 8 | 3/5/2014 | Lab practical exam 1 |
| 9 | 3/12/2014 | Enzyme kinetics |
| 10 | 3/19/2014 | Photosynthesis & chromatography |
| 12 | 3/26/2014 | Spring break No class |
| 13 | 4/2/2014 | Cellular Respiration |
| 14 | 4/9/2014 | Scientific writing |
| 15 | 4/16/2014 | Mitosis/meiosis |
| 16 | 4/23/2014 | DNA extraction |
| 17 | 4/30/2014 | Lab practical exam 2 |