BIOL275L Cell and Molecular Biology Lab
(CRN: 64352, 1 credit)
Wednesday 10:00 am – 12:30 pm, Hale Imiloa 106

INSTRUCTOR:	Dr. Hongwei Li
OFFICE:	Hale Imiloa 107
OFFICE HOURS:	Wednesday 8:50 am – 9:50 am, walk-in or by appointment
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EFFECTIVE DATE:	Spring 2017

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide O'ahu's Ko'olau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

CATALOG DESCRIPTION

Laboratory for cell and molecular biology. Co-Requisites: BIOL275; or consent of the instructor.

STUDENT LEARNING OUTCOMES

Upon completion of the course, the student will be able to:

- Operate equipment used in cell and molecular biology laboratory.
- Conduct experiments including DNA/RNA/protein extraction and electrophoresis, enzyme kinetics, ELISA, RFLP, PCR, gene expression.
- Produce lab reports using the standard scientific format.

COURSE TASKS AND GRADING

- Class attendance is mandatory.
- Students must be able to access / utilize Laulima
- Students are expected to read the assigned lab manuals before coming to class.

Attendance:

- Attendance in lab is mandatory. You will be graded on laboratory attendance, level of participation, and performance in laboratory practices.

Lab Report

- A laboratory report should contain following sections, *Title, Introduction, Materials and Methods, Results* and *Discussions*.

Title

The title of the experiment (given in the syllabus).

Introduction

Briefly describe the background information about the experiment.
Clearly state the objectives of the experiment.

Materials and Methods

Specific information on materials used other than regular reagents.
The use of appropriate methods should be clearly described.

Results and Discussions

Describe the data. Use tables, charts, graphs or other visual representations when they help to explain or organize the data.

The results should also be referenced appropriately (Fig. 1, ... or Table 1, ...) so that you can discuss the results in the discussion section.

You need to state what the data means. The narration should be very clear and relevant to the results.

Discuss the results in reference to your experiment, such as comments on experimental design and possible sources of errors

Lab Notebook

- The first page should contain the Table of Contents.
- All pages should be numbered.
- The date of each lab should be written on the upper left hand side of each page, in continuous chronological order.
- No pages are to be left blank.
- All procedures must be recorded in detail in the notebook.
- All data (including tables, picture, or numbers) must be recorded clearly and titled.
- Any observations of interest should be noted.
- At the end of each experiment you may discuss the data, analyze the potential sources for errors or failures, or make a comment on this experiment
- Entries in the notebook should be done in lab or immediately after the lab.

Quizzes and Final Exam

- Four quizzes and final exam will be given in classes. The format of tests includes Multiple Choice, Fill-in-the-blank, Matching, Short Answers. Make-up test will be permitted only when there is a legitimate excuse (such as illness or emergency; doctor's note is required). No early or make-up exam for the final.

Grading

Tasks	**Possible Points**
Lab Participation	100
Lab Notebook	100
Lab Reports	100
Quizzes (4)	200
Final Exam	100
Total possible points	600

- Grading is based on the percentage of total points earned. Final Grades will be assigned as follows:

A 90 – 100%
B 80 - 89%
C 70 - 79%
D 60 - 69%
F 0 - 59%

I (incomplete) grade is given at the instructor's option when a student has failed to complete a small part of a course because of circumstances beyond his or her control. The student is expected to complete the course by the designated deadline in the succeeding semester. If this is not done, the I grade will revert to the contingency grade identified by the instructor