

Genetics Laboratory Syllabus – Spring 2011

Dr. Mary E. Miller

Date	Week	Laboratory	Evaluation
Jan 18	1	Lab Handout 1: Introduction to the laboratory: Sterile Technique, Pipetting, and Laboratory Safety Introduction to KP1019	
25	2	Lab Handout 2: Viability assays with KP1019	
Feb 1	3	Lab Handout 3: Morphological characteristics and budding index Image capture of viability plates	
8	4	Lab Handout 4: Data Analysis of Morphology/Budding Index Images	Introduction DUE
15	5	Lab Handout 5: Introduction to Microarrays	Viability Assay Figure DUE
22	6	Lab Handout 6: Growing and harvesting yeast	Morphology/Budding Index Figure DUE
March 1	7	Lab Handout 7: Isolating yeast RNA	
8	8	Lab Handout 8: Preparation of cDNA	
15		NO LAB – Spring Break	
22	9	Lab Handout 9: Hybridizations	Methods DUE
29	10	Lab Handout 10: Data Analysis with Magic Tool Meet in Computer Lab in Library	
April 5	11	Data Analysis with Magic Tool/Figure Preparation	
12	12	Paper Preparation	Microarray Figure(s) DUE
19	13	Laboratory Practical Exam	Practical Exam
26	14	Lab Report Due	Lab Report Due

Lab Handouts are available on Moodle. You are expected to read and understand the handouts before coming to class.

Grading: You will receive a possible total of 190 points from the laboratory toward your total possible 600 points in this course.

Introduction	25
Viability Assay Figure	10
Morphology/Budding Index Figure	10
Methods	20
Microarray Figure	15
Lab Report	50 points
Practical Exam	<u>60 points</u>
	190

The Lab Report Assignment:

The lab report is an INDIVIDUAL assignment, and the honor code applies to the completion of this assignment. Obviously, you are free to discuss the results of your experiment with other students in the class, but your interpretations of these results should be yours alone, and the write up should be prepared with no aid from your classmates.

You will be working on components of your lab report throughout the semester. The goal is for you to take the feedback that you get on the individual sections, and integrate them into your final lab report.

No reports or report sections may be turned in beyond the scheduled time unless medical or personal emergency warrants it. In such cases, the assignment grade will be reduced by 10% for each day that they assignment is late. The professor must be consulted for approval **prior** to the deadline or as soon after as possible. A student may always turn in an assignment prior to the assigned deadline. Missed assignments for unexcused reasons will receive a grade of 0. These policies hold true for laboratory assignments as well as Lecture exams and quizzes.

The cumulative final in the laboratory is a practical exam, meaning that in addition to testing knowledge and synthesis of content presented in the laboratory exercises, the student will be required to carry out some physical aspects of the laboratory exercises (ie, streaking plates, identifying viability patterns, working with arrays). For this reason, no makeup will be available for the cumulative laboratory final. Please plan ahead so that you will not miss this date.

Attendance in the laboratory is mandatory. Lack of attendance or participation will result in a reduction in grade. **If you are unable to attend laboratory on Tuesdays because of extracurricular activities, you should not take this course.**

Follow proper safety protocols in the lab and report any accidents to Dr. Miller immediately.

The Rhodes College Honor Code applies to all work done in the lab, and in this course.