

Course Syllabus

Spring 2024

Prof. Yunde Zhao

BICD123: Plant Molecular Genetics Laboratory

April 1 (Monday)	Safety/Flower development/Genetic Crosses
April 3 (Wednesday)	Seed Storage Protein Expression/Protein gels
April 8 (Monday)	Protein Gel Analysis/ Agrobacterium-mediated transformation (I)
April 10 (Wednesday)	Agarose Gels/Gibson assembly/E.coli Transformations / Agrobacterium-mediated transformation (II)
April 15 (Monday)	Colony PCR/Minipreps/Digests/Gels/Sequencing / Check transformation results
April 17 (Wednesday)	Sequence analyses/Database search
April 22 (Monday)	DNA markers and Positional cloning 1
April 24 (Wednesday)	DNA markers and Positional cloning 2
April 29 (Monday)	Light signaling 1

May 1st (Wednesday)	Auxin signaling 1
May 6 (Monday)	Light signaling 2
May 8 (Wednesday)	Auxin signaling 2
May 13 (Monday)	Nitrate reductase biochemical assay
May 15 (Wednesday)	Environmental induction of nitrate reductase
May 20 (Monday)	Yeast complementation/heavy metal resistance
May 22 (Wednesday)	Stomatal movements
May 27 (Monday)	Holiday
May 29 (Wednesday)	GUS staining and RUBY
June 3 (Monday)	Review and GMO movie
June 5 (Wednesday)	Final Exam








Grading policies

Course Grade: Grades will be determined by a combination of the written lab reports (75%) and a Final exam (25%).

Late lab reports: All lab reports must be handed in on time to receive full credit. Late lab reports will be assessed a 10% penalty for each day it is late. For example, if a report is worth 20 points, a lab report handed in two days late could receive a maximum of 16 points.

Class Attendance: Students are expected to attend ALL of the lab classes. If, for reasons of illness, a student misses a class, they must write an essay on a topic that will be assigned by the instructor. If a student misses a class and fails to write the essay, they will lose 5% from the overall course grade.

Course Summary:

Date	Details	Due
Sun Apr 7, 2024	 extra credit (https://canvas.ucsd.edu/courses/54557/assignments/783799)	due by 11:59pm
Fri Apr 12, 2024	 Week 2 extra credit (https://canvas.ucsd.edu/courses/54557/assignments/794753)	due by 11:59pm
Sun Apr 14, 2024	 Lab report 1 (https://canvas.ucsd.edu/courses/54557/assignments/794725)	due by 11:59pm
Sun Apr 21, 2024	 extra credit 3 (https://canvas.ucsd.edu/courses/54557/assignments/797463)	due by 11:59pm
Tue Apr 23, 2024	 Meeting with Lee (https://canvas.ucsd.edu/calendar?event_id=1058522&include_contexts=course_54557)	10:30am to 11:30am
Sun Apr 28, 2024	 Extra credit 4 (https://canvas.ucsd.edu/courses/54557/assignments/797971)	due by 11:59pm
Sun May 5, 2024	 Lab report 2 (https://canvas.ucsd.edu/courses/54557/assignments/797839)	due by 11:59pm