

BIL 151 General Biology Laboratory Syllabus - Fall 2018

<u>Week of:</u>	<u>Lab Topic:</u>
August 20	Lab #1: Scientific Investigation: An Introduction Introduction to Project I: Mechanisms of Mitosis <u>assignment:</u> Literature search (due next week)
August 27	Lab #2: Project Planning: Mechanisms of Mitosis Quiz #1 (10 points) Literature search due this week (20 pts) <u>assignment:</u> Research project experimental protocol due at end of lab. (30 pts)
September 3	LABOR DAY HOLIDAY: NO LABS THIS WEEK
September 10	Lab #3: Data Collection: Mechanisms of Mitosis Quiz #2 (10 points) <u>Experiment engagement and execution:</u> 15 points (30 total over 2 sessions)
September 17	Lab #4: Data Collection, Analysis: Mechanisms of Mitosis <u>Experiment engagement and execution:</u> 15 points (30 total over 2 sessions) Quiz #3 (10 points) <u>assignment:</u> Data collection and preliminary analysis in lab
September 24	Lab #5: Data Analysis and Presentation Preparation Quiz #4 (10 points) <u>assignment:</u> All data analyzed and in graphic form by end of lab (25 points)
October 1	<u>POWERPOINT RESEARCH SYMPOSIUM: Mechanisms of Mitosis (50pts)</u>
October 8	Lab #7: Introduction to Project II: Enzymatic Reactions Quiz #5 - 10 points
October 15	FALL RECESS: NO LABS THIS WEEK
October 22	Lab #8: Practicing Protocol: A Sample Experiment Quiz #6 - 10 points Due: Literature search synopsis – 20 points <u>Practice experiment engagement & execution:</u> 15 points (45 total over 3 sessions)
October 29	Lab #9: Enzymatic Reactions: Project Planning: Quiz #7 - 10 points <u>assignment:</u> Research project experimental protocol due at end of lab. (30 pts)
November 5	Lab #10: Enzymatic Reactions: Data Collection I Quiz #8 - 10 points <u>Experiment engagement & execution:</u> 15 points (45 total over 3 sessions)
November 12	Lab #11: Enzymatic Reactions: Data Collection II Quiz #9 - 10 points <u>Experiment engagement & execution:</u> 15 points (45 total over 3 sessions) <u>assignment:</u> Data collection and preliminary analysis in lab
November 19	THANKSGIVING HOLIDAY: NO LABS THIS WEEK
November 26	Lab #12: Data Analysis and Presentation Preparation Quiz #10 - 10 points <u>assignment:</u> All data analyzed and in graphic form by end of lab (25 points)
December 6-12	<u>POSTER SESSION SYMPOSIUM: Enzymatic Reactions</u>

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Lab Manual

The Lab Manual chapters are linked to the syllabus at <http://www.bio.miami.edu/dana/151>
YOU MUST BRING YOUR LAB MANUAL WITH YOU TO THE FIRST LAB AND TO EVERY LAB, either in hard copy or on your electronic device. **You should always have a laptop, pad, or other electronic device with you in lab every week.**

Always read the lab manual chapter and associated reading assignments before coming to lab. Be prepared for a quiz on the material you have done and/or are about to do in lab.

Appropriate readings from your lecture textbook should be considered required for laboratory prep.

Research Symposia

Your two research projects will be presented by your team as either a PowerPoint presentation (Project #1) or a Scientific Poster Presentation (Project #2). Your Lab Instructor will explain the presentation format and grading assessments. Additional instructions can be found in the online lab manual.

Attendance and Make Ups

Attendance in laboratory is MANDATORY. DO NOT MISS YOUR LABORATORY SESSION!

Notify your lab instructor immediately if you miss a lab for a true medical or family emergency. Make up of missed work will be at the discretion of your instructor. **You will not receive credit for work you did not actually do.**

Grading

Part I – Mechanisms of Mitosis

Mitosis Literature Search synopsis	20 points
Mitosis experimental design	30 points
Quizzes	40 points
Mitosis research engagement & participation	30 points
Mitosis figures and tables (Lab #6)	25 points
Mitosis PowerPoint presentation	50 points

Part II – Enzymes and Enzymatic Reactions

Catalase Literature Search synopsis	20 points
Catalase experimental design/protocol	30 points
Quizzes	60 points
Catalase research engagement & participation	45 points
Catalase figures and tables (Lab #12)	25 points
Catalase Poster presentation	50 points

Discretionary points 25 possible

TOTAL 450 points

Laboratory Equipment

Any student found guilty of wanton negligence or abuse of lab equipment will automatically be docked 5 points. Infractions include, but are not limited to

- leaving a microscope dirty or leaving a microscope slide on the microscope stage
- leaving your lab station untidy
- failing to dispose of used reagents properly
- throwing trash in the sinks or other inappropriate location

Lab courses provide an opportunity for you to learn proper use of the tools of your future chosen profession. Use the opportunity wisely.

Academic Ethics

Cheating, including copying on exams and plagiarism on lab reports, will not be tolerated, and is easily detected by our very experienced and jaded TAs. All cases of academic dishonesty will be turned over to the UM Honor Council.