

**Text:** BSC1005L South Campus General Biology Laboratory Manual.

**Required materials:**

Lab Coat (full length) - [paper coats are acceptable]

Safety Goggles

**LAB SCHEDULE**  
**GENERAL BIOLOGY LABORATORY (BSC 1005L)-T**

<b>Date</b>	<b>Lab #</b>	<b>Title and Topics</b>
May 17	1	<b><u>Introduction to Lab and Lab Safety</u></b> Laboratory operations and routine; evaluation, grading, and safety practices.
May 24	2	<b><u>Microscopes</u></b> (VIDEO: <i>Microscopes</i> ) Compound monocular and stereomicroscopes, microscope technique, metric measurement.
May 31	3	<b><u>The Scientific Method</u></b> Design an experiment using the scientific method to collect and analyze data.
June 7	4	<b><u>Cell Chemistry</u></b> Amino acids, chromatography, molecular models, glucose and other carbohydrates, acids-bases-salts, pH.
June 14	5	<b><u>Enzymes</u></b> Protein structure, denaturation, enzyme-substrate specificity, hydrolysis, effect of pH.
June 21	6	<b><u>The Cell Membrane</u></b> Brownian movement, diffusion, osmotic pressure, selective permeability of nonliving and living membranes.
June 28	7	<b><u>Bacteria</u></b> Sterile technique, bacterial nutrition, culture methods, antiseptics and antibiotics, staining and bacterial morphology.
July 5	8	<b><u>Complex Single Cells-Protozoa</u></b> Heterotrophic life, <i>Paramecium</i> : Structure and function, locomotion, organelles, feeding, and digestion, contractile vacuoles and diffusion, reproduction.
July 12	9	<b><u>Cell Ultrastructure</u></b> Homogenization, filtration, and centrifugation of cellular components, microscopic and biochemical analysis of cellular organelles.
July 19	10	<b><u>Reproduction, Molecular to Cellular</u></b> (VIDEO: <i>Cell Division-Mitosis and Cytokinesis</i> ) DNA Replication, mitosis, and squash technique for chromosomes. <b><u>*(Drosophila Cross)</u></b>
July 26	11	<b><u>Heredity</u></b> Probability and genetic ratios in corn; blood type, tongue rolling, and PTC testing in man.
August 2	13	<b><u>Inheritance in Drosophila</u></b> Culture and handling methods for the fruit fly, inheritance of vestigial wings and white-eye color, sex linkage.
August 9	14	<b><u>Rock Pocket Evolution</u></b> A data collection and analysis lesson that examines selection for coat color in pocket mouse populations on different color substrates over time. Students analyze amino acid data and draw conclusions about the evolution of coat color phenotypes in different rock pocket mouse populations.

**\*\*Important dates:**

July 6 - Last Day to Withdraw or Change to/from Audit

**STUDENTS ARE REQUIRED TO PURCHASE A LAB MANUAL FOR THE FIRST LAB.**

**Lab website:** <https://sites.broward.edu/science-wellness-miramar/>