

LABORATORY SCHEDULE

WEEK	EXERCISE
I	The Microscope : Basic skills <ul style="list-style-type: none">• Scientific Method• Reporting in Science
II	Chromatography <ul style="list-style-type: none">• Measurements in Science: Metric System• Quantitative Skills
III	Chemistry of Water <ul style="list-style-type: none">• Atoms• Water• pH: Acids, Bases and Buffers (activity)
IV	Biologically Important Molecules I: Carbohydrates & Lipids <ul style="list-style-type: none">• Basic Organic Chemistry• Carbohydrates Activity
V	Biologically Important Molecules II: Proteins & Nucleic Acids <ul style="list-style-type: none">• Protein Activity• Review (concept map)
VI	Quantitative Determination of Proteins <ul style="list-style-type: none">• Beer's Law (virtual)• Protein Assay (large spec)• Protein Assay (SpectroVis)
VII	Enzyme and Energy <ul style="list-style-type: none">• Enzyme Kinetics activity
VIII	Membranes and Biological Transport: Diffusion and Osmosis <ul style="list-style-type: none">• Size• Gummy• Cell Models• Dialysis•
IX	Cellular Energy <ul style="list-style-type: none">• Anaerobic and Aerobic• Review (concept)
X	Photosynthesis <ul style="list-style-type: none">• Pigments• Absorbance Spectra• Light in Carbohydrate Synthesis

- Review ([concept](#))

XI [Cell Division](#)

- Mitosis: [Estimating time of phases](#)
 - [Chromosome Modeling](#)
- [Meiosis](#): Reduction Division and Gametogenesis
- [Comparing Cell Division](#)
- [Chromosomes and Karyotypes](#)

XII Principles of Gel Electrophoresis

- [Purification of DNA, Dische's Test](#)

XIII DNA Fingerprinting

- [Analyzing DNA](#)
- [PCR Technology](#)
- [Forensics](#)

XIV [Genetics](#)

- [Genetics of Taste Activity](#)
- Counting Corn

XV Statistics of genetics