Tentative Syllabus: CHEM2031L Survey of Biochemistry Laboratory II

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January 13  Check in
January 20  Experiment 1: General Color Test for Carbohydrates
January 27  Experiment 2: Oxidation of Carbohydrates
February 3  Experiment 3: Quantitative Determination of Sugar in Foods
February 10 Experiment 4: Hydrolysis of Starch by Salivary Amylase
February 17 Experiment 5: Fermentation of Sugars
February 24 Experiment 6: Preparation of Esters
March 3    Experiment 7: Non-Saponifiable Materials
March 10   Experiment 8: Iodine Number of Fats and Oils
March 17   SPRING BREAK!
March 24   Experiment 9: Calcium Content of Dried Milk Powders
March 31   Experiment 10: Extracting DNA from Human Cells
April 7    Experiment 11: The Effect of Various Modes of Cooking on the Vitamin C Content of a Pepper
April 14   Experiment 12: Bioluminescence
April 21   Check Out/Make up labs

Grades

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NOTE: Pre-lab Quizzes for an experiment are worth 10 pts and will be given at the beginning of the lab period.

All lab reports are due one week after the completion of the experiment but before the next lab meeting.

Late reports will be accepted, but will incur a 10 pt penalty.
Reports are worth 50 points for each experiment (600 pts)

Total possible points for the lab: 720

Make-up labs will be allowed only with a doctor’s note or comparable excuse. The data from one’s lab partner can be used to write the report (and will be due at the same time as everyone else’s report), and will be awarded ½ credit for the entire experiment. You will make up the hands on lab portion by collecting your data on “check out” day.

Academic dishonesty The University Rules, including the Student Code of Conduct, and other documented policies of the department, college, and university related to academic integrity will be enforced. Any violation of these regulations, including acts of plagiarism or cheating, will be dealt with on an individual basis according to the severity of the misconduct.

Lab Report Format
You will each turn in an individual lab report, however you will perform the labs in groups of two. Your lab report will consist of three sections. Section one will be your lab data sheet (20 pts). Section two will be your post lab questions (20 pts). Section three will be your discussion/conclusion (10 pts). A word about your discussion/conclusion - this should not be a book - it should be long enough to convey the information needed but no longer. Please use the following as a guide - you will lose points from your lab for not including the following - you will also lose points from your lab for including irrelevant information and “fluff”:

- Include a short summary (1 to 2 sentences) of what you did and why – use your own words!
- Discuss your confidence in your results – do you trust your data – why or why not?
- List and discuss and at least two sources of possible or witnessed error. How would the error affect your final results? Be specific – do now write “I spilled the chemical”.
- Discuss at least two thing you would change about the lab to make it better – something to give more accurate results, make it more efficient, more informative, more safe, more fun, etc.

A note about lab policy:
You will be given a quiz at the beginning of each lab. Dr. Waddell will grade your quizzes and hand them back to you during that lab period. You must both take and collect your quiz or you will be considered absent and receive no credit for the lab. You must also have Dr. Waddell or a TA sign your data/observations before you leave lab or you will be given zero credit for that section of your lab report.