Lab 1 Notebook

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UCSC BME 22L

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Abstract

Prelab

1. Give the volume range of p100 and p1000.
2. For each pipette look up the relative and absolute error for 3 different volume settings.
3. Look up water density: Weight per volume (g/µL).
4. Give an example in which gel electrophoresis is used.
5. Name the two pipetting techniques.
6. How many ways are there to correctly load a microcentrifuge?

Lab Results:
Water Trial Chart
Pipet model used: _____

This graph is associated with only 1 micropipette used; so make three of these.

Trial	volume extracted (uL)	Mass weighed (g)
1		
2		
3		
4		
5		

Calculate the Standard Deviation and Percent Error

Standard **D**eviation= $(((x-y)^2))/(n-1))^{(1/2)}$

For help with Standard deviation look here.
x = summation of individual values
y = mean of all values
n = # of trials

% Error = $((x-z)/z)(100)$

For help with Percent Error look here.
x = mean value
z = set volume (intended volume on scale)

Mean= _____ % Error= _____ S.D.= _____

Does your micropipettes fall under regular systematic error? If not, inform a teacher or TA they can help with recalibration. Look at the chart at the end of the 'Introduction to Materials' file for help.

Attach a picture of the liquids you have spun in your Microcentrifuge and give the name of liquids used. In your own words describe what happened to the liquids.

Post Lab
Write a short experiment where you use at least 2 of the components learned in this lab.

Disclaimer:

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