

CHEM 1105

EXPERIMENT 1: INTRODUCTION TO THE CHEMISTRY LAB AND USE OF THE ANALYTICAL BALANCE

Name:

Station #:

Date:

OBJECTIVE: To learn the techniques on how to do pipetting and to use analytical balance.

WEIGHING EXERCISE:

Weigh an aluminum cylinder and boat **accurately** on an analytical balance and record its mass to four decimal places (record all the numbers that are on the display of the balance). Remove the cylinder, and weigh the empty boat on the **same balance** and record its mass. Subtract these two data readings and find the mass of the aluminum cylinder to four decimal places.

Data:

Mass of boat + cylinder (g)	
Mass of boat (g)	
Mass of cylinder (g)	

PIPETTING EXERCISE:

Weigh an empty 50-mL beaker on an **analytical balance** and record its mass. Pipette 15.00-mL of tap water from another 50 mL beaker and transfer into the weighed beaker. Reweigh the beaker plus water on the **same balance**. Do not empty the beaker. Pipette another 15.00-mL of tap water into the same beaker and weigh it again. Repeat this process one more time. Record all the data in the following table.

Data and calculations:

Calculate the mass of the 15.00 mL of pipetted water by using your data values.

Mass of empty 50-mL beaker = _____ g

Run #	Total Pipetted Volume (mL)	Mass of 50 mL beaker + pipetted water (g)	Mass of only 15.00 mL pipetted water in each run (g)
1.	15.00		
2.	30.00		
3.	45.00		