

# CHEM 101 Laboratory Exercise #1

## Laboratory Notebook

Measurement of Volumes and Weight: Accuracy and Precision

<b>Name:</b> Arfaz Hossain	<b>Lab Section:</b> B01	<b>Quad:</b> 02	<b>Date:</b> May 21, 2024
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### In-lab Notes

#### Experimental Procedures:

1. For weighing accurately an approximate 1.5 g of NaCl, I used a weigh boat to take the NaCl and then put that on a balance. I documented the weight of the NaCl (excluding the weight of the weigh boat).
2. Then I transferred the NaCl to a 50.00 mL volumetric flask from the weigh boat and filled to the mark with distilled water.
3. I took a 50 mL beaker on a balance, transferred 10 mL of the solution and then documented the weight of solution in the beaker (excluding the weight of the beaker) .
4. I used a 10.00 mL volumetric pipette and transferred 10.00 mL of the NaCl solution from the volumetric flask to the beaker 3 more times, each time documenting the weight of the solution excluding the weight of the beaker.
5. I rinsed the equipment used in this lab which includes the beakers, volumetric flask and volumetric pipette after I was done using them.

#### Lab Measurements:

Weight of the NaCl: **1.564g**.

1.1 Weight of the Beaker is **28.505g**.

1.2 Weight of the Solution-01: **11.132g**.

2.1 Weight of the Beaker is **28.502g**.

2.2 Weight of the Solution-02: **10.150g**.

3.1 Weight of the Beaker is **28.507g**.

3.2 Weight of the Solution-03: **10.133g**.

4.1 Weight of the Beaker is **28.502g**.

4.2 Weight of the Solution-01: **10.151g**.

#### Reference

1. Monica et al, *Properties of Materials Laboratory Manual*, Summer 2024, pp. 1-18 (Publisher: University of Victoria, Department of Chemistry, Faculty of Science).