

Analytical/Regular Balance Station

The analytical balance station is assigned on a first-come, first-served basis. A total of two analytical balance stations are available: the one in room WB203 is used for **KMnO₄ and Dextrose** while the one in room WB 202 is used for chemicals in **liquid form**. A total of two regular balance stations are available in WB 202 and WB 203, both stations are designated for **chemicals in powder form** and used in battery assembly.

General rules:

1. Please use the dedicated balance station for the chemicals you are planning to measure.
2. A team cannot occupy a balance station for more than 10 minutes at a time
3. Weighing containers (weighing boats or weighing paper) are provided at the balance station.
4. If the chemical requires dissolving, it should be carried out at the designated space at the balance station. Chemicals are not allowed to transfer in a weighing container

Proper usage of the balance:

1. Before using the analytical balance, ensure the workspace is clean and free from debris.
2. All chemicals measured has to be contained in either a weighing boat provided or a piece of weighing paper provided. Glass or plastic containers such as beakers and Falcon tubes shall NOT be used on balance.
3. Before using the analytical balance, ensure the workspace is clean and free from debris
4. After using the analytical balance, ensure the workspace is clean and free from debris. Clean the balance using the brush and dustpan provided at the balance station
5. Report any issues or malfunctions with the analytical balance to the lab supervisor immediately.
6. Spatula of all sizes are provided at the balance station. Choose the spatula of the appropriate size and dispose of the spatula in the designated container next to the balance. DO NOT put the spatula back!
7. Micropipette, micropipette tips, Pasteur pipette and Pasteur pipette bulbs are provided at the liquid balance station.
8. Micropipette tips shall only be used once unless transferring the same liquid without contamination and shall be disposed of in the sharp container next to the balance.
9. Pasteur pipette shall only be used once unless transferring the same liquid without contamination and shall be disposed of in the designated container next to the balance.
10. **Chemicals can only be taken out from the origin container and shall NOT be put back into the container. Dispose of the excess chemicals in the designated waste container next to the balance.**

1.3 Manual for using the shared space

Spectrometer Station

A Spec 20D+ uv-vis spectrophotometer is available for use in the shared space.

General rules:

1. It is the team's responsibility to read through the SOP for the spectrophotometer. The lab supervisors would not provide any help regarding the operation of the device. Though safety violations would be pointed out and corrected
2. The operation of the spectrophotometer has to involve at least one second-year (or upper-year) chemical engineering student who has already taken CHE204. The student(s) has to be present at all times during the operation
3. Standard solutions have to be made at the team's designated bench and shall be prepared before the usage of the spectrophotometer.
4. The simplified SOP for the Spec 20D+ uv-vis spectrophotometer can be found next to the spectrophotometer. A detailed version can be found in Appendix 2 in the Hackathon package