**Station 1: Proper Lab Attire**

Instructions

1. Student has on inappropriate PPE (shorts or pants that don’t cover ankles, no safety goggles, no lab coat, no gloves)
2. TAs in training recognize all PPE that is missing
3. All required PPE is at the bench to illustrate what students must have (suitable pants, blue/white lab coat, safety goggles, gloves)

Discussion Points

1. Proper pants are important because chemicals can easily adsorb through socks, and any spills can land directly on someone’s legs if they’re not wearing proper pants
2. Goggles provide protection against splashes and vapors that safety glasses otherwise wouldn’t.
3. Aprons do not count as lab coats.
4. Recommend that students who like to wear shorts bring pants or scrubs to change into before entering lab.
5. The TA can remind the student they have 20 minutes from the start time of the lab to correct any necessary attire and still attend lab. They may call a friend to bring them the correct attire they need – the same time limit applies and they must wait in the hall for their friends.
6. Problems should be reported to the lab staff – Serenity Desmond or Tom Hennessey (7:30 AM – 3:30 PM) or Rchel Ziegler (1:00 PM – 5:30 PM). Staff can be called to the lab using the walkie-talkies.
7. PLEASE PROVIDE ANY ADVICE/TIPS YOU MAY HAVE LEARNED IN YOUR EXPERIENCES

**Station 2: Mishandling Chemicals and Unruly Students**

Instructions

1. Student attempts to pour from 4L container – directly into small graduated cylinder
2. TA should instruct student on proper chemical handling procedures
3. Discussion about proper handling of angry/upset students.

Discussion Points

1. When dealing with angry/upset students the TA should calmly address the student and ask them what the issue is. If the student is extremely angry or upset the TA should ask them if they would like to step out of lab for a few minutes. If problems persist, the TA should talk to Serenity Desmond.
2. TAs should kindly address students and show them proper techniques when handling chemicals or other lab equipment.
3. TA’s should instruct students on proper handling at the beginning of labs – i.e. tell them to use a beaker to obtain some solvent from 4L container and can share with neighbors
4. PLEASE PROVIDE ANY ADVICE/TIPS YOU MAY HAVE LEARNED IN YOUR EXPERIENCES

**Station 3: Proper Treatment of Lab Equipment**

Instructions

1. Student spills salt all over balance
2. TA prompts student to clean up any equipment
3. Discuss protocol for obtaining new glassware

Discussion Points

1. Remind students it is important to clean up after themselves – including their own bench space as well as communal spaces.
2. Students will often clean their bench spaces but leave the communal areas and instruments a mess! (rotovaps, balances, waste hoods, etc)
3. May have lab cleanliness be a part of lab grade – usually awarded to class as a whole not individuals.
4. Replacing missing or broken glassware – policy is usually determined by Professor. Ask if you are unsure.
5. PLEASE PROVIDE ANY ADVICE/TIPS YOU MAY HAVE LEARNED IN YOUR EXPERIENCES

**Station 4: Waste Disposal**

Instructions

1. Student has example items to be disposed of
2. TAs should instruct student to proper disposal place

Discussion Points

1. Waste Disposal is one of the more difficult things for TAs to monitor – keep reminding students
2. Waste Disposal container
   1. Red (Sharps) – glass pipettes, razor blades, syringes
   2. White (Broken glass) – broken glass, TLC plates
   3. Green – Scintillation vials (full or empty)
   4. Yellow – contaminated paper, plastic pipettes, weigh boats, aluminum foil, boiling sticks, filter paper, steel wool
   5. Orange – Gloves
   6. Labelled Container – Chemicals
3. PLEASE PROVIDE ANY ADVICE/TIPS YOU MAY HAVE LEARNED IN YOUR EXPERIENCES

**Station 5: Chemical Spills**

Instructions

1. Student does a series of spills (acid, base, neutral)
2. TA should give response as to how to clean the spill
3. Student goes through proper cleaning procedure

Discussion Points

1. First check the pH of the spilled chemical
2. Neutralize acids with sodium bicarbonate. Add base slowly so that the waste becomes neutral, not basic.
3. Neutralize bases with citric acid. Add acid incrementally while testing for pH as not to cause the spill to be overly acidic.
4. Use paper towel for small spills, use absorbent materials in spill kits for larger spills
5. Use broom and dustpan to collect spilled solids
6. The TA should use the walkie-talkie in the lab to contact Tom Hennessey (7:30 AM – 3:30 PM) or Rachel Ziegler (1:00 PM – 5:30 PM) to help coordinate cleaning the spill.
7. PLEASE PROVIDE ANY ADVICE/TIPS YOU MAY HAVE LEARNED IN YOUR EXPERIENCES

**Station 6: Accident Response**

Instructions

1. Have students use eye wash if they wish - OPTIONAL
2. Discuss where first aid is located, the contents of the kit, and how to use the items provided.
3. Discuss the steps to take when a student passes out
   1. First call 911
   2. Contact lab staff (Serenity, Tom, Rachel) using the walkie-talkie
   3. If the student just feels faint or quesy, assist in having them sit down outside of the lab and contact lab staff with walkie talkie

Discussion Points

1. For ALL cuts, the TA should contact Serenity Desmond to complete the necessary paperwork.
2. For minor cuts, the TA should direct the student to a sink where they should thoroughly wash the cut and apply a bandaid.
3. For significant cuts, the student can still wash the wound and attempt to use a bandaid, but they should be directed to McKinley.
4. Severe cuts – call 911.
5. Encourage students to use safety showers and eye washes when needed
6. Students pass out every semester!!!!
7. PLEASE PROVIDE ANY ADVICE/TIPS YOU MAY HAVE LEARNED IN YOUR EXPERIENCES

**Station 7: General Comments or Questions**

Jacob and Maria will lead this station in each lab. This will be a chance for TAs-in-training to ask any questions they may have.

JST will have merchandise for students at this station

**General Instruction**

Groups of 2-3 TAs will rotate between the 7 stations

7 stations in two labs each led by a graduate student volunteer (14 total volunteers)

Each rotation will last around 8 minutes

Pizza and Prizes provided for volunteers

Email

**The Joint Safety Team (JST) wants your help!**

**As part of our efforts to improve the safety culture in the Chemistry Department, we are assisting with training the incoming graduate student and undergrad TA’s for the upcoming semester.**

**During this training, graduate student volunteers will “role-play” as students that do not follow standard lab rules (shorts in the lab, no safety goggles, etc.). The TA’s will have to identify the problem and intervene in the appropriate way. Afterwards, the graduate student volunteers will give feedback to the trainees.**

**We hope that this training session helps the lab TA’s feel more comfortable in a position of authority. This will improve communication between TA and student and help to mitigate potential incidents throughout the semester. Plus, it should be fun for graduate students to be the “bad students”, so please sign-up!**

**We need 12 volunteers for each day of the training.**

**Pizza and pop will be available for all volunteers, plus we will be raffling prizes!**