**Lab Chore Manual**

\*\*\*As of 5/15/17, use the autoclave on the *right* when autoclaving liquids.

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| Job | Instructions |
| Taking the hazardous waste for disposal |  |
| Cleaning the -80 freezer filter weekly, de-ice monthly | 1. Obtain plastic ice scraper (usually located next to -80 freezer). 2. Use scraper to scrape ice off of the doors/walls of the -80 freezer. 3. Scrape out ice from underneath rubber seals around door. Work quickly since freezer will sound an alarm if its door is open for too long (the alarm can be silenced by pressing the “silence” button on the panel on the door). 4. Mop up any ice that drops onto the floor. 5. Check -80 filter for dust and clean if necessary. |
| Autoclave and take out the trash | 1. Take out bag of waste from the bin and tie with a twist tie. Ties are found in bottom drawer underneath gel boxes. 2. Place bag of waste into another autoclave bag (found in bottom drawer underneath gel boxes). Also tie this second bag with a twist tie. 3. Put a piece of autoclave tape onto bag. 4. Place bag of waste onto a metal autoclave tray and autoclave on liquid cycle. 5. Let cool, then place bag into cart and bring to first floor via elevator next to Dr. Hill’s office. 6. Dispose of autoclaved waste in dumpster between MSB and Boyer Hall. |
| Cleaning the balance & spectrophotometer benches | 1. Use a dry paper towel to wipe off any dust accumulated on bench. 2. Use a wet paper towel to wipe bench. 3. Spray bleach on bench and wipe down. 4. Spray water on bench and wipe down. 5. Spray ethanol on bench and wipe down. |
| Cleaning/autoclaving glassware & test tubes | Cleaning the glassware/test tubes   1. Put on gloves and a lab coat and find the cart. 2. Go to the sink near the gel boxes and rack the test tubes. Once a rack is full or all the test tubes have been racked place another rack over the top of the test tubes to form a type of cage. Place these on the cart. Grab the containers with the test tube lids by the sink and also place these on the cart. 3. By the main sink rinse each piece of glassware from the soaking tray before placing them onto the cart. Grab the lids and the cotton stoppers on the top right of the snk area 4. In the autoclave room load the dishwasher by placing the big pieces of glassware onto spokes. But the bigger items in the back and smaller in the front. 5. Place the test tubes so that they are upside down on the flat bed tray. 6. Add bottle caps to the test tube lids and place lids the containers to keep the lids and caps from falling out. Also place this on the flat bed tray. 7. Close the dishwasher and press start. The cycle should take ~30 min 8. Retrieve the now clean glassware and test tubes from the dishwasher and put them into the oven to dry. Put the lids into a metal tray to dry and any plastic on the top shelf. This includes test tubes in plastic test tube racks.   Autoclaving the glassware/test tubes   1. Once the glassware and test tubes are dry remove them from the oven and prepare to autoclave. 2. Any beakers do not need to be autoclaved and can be put aside to be taken back to lab 3. For the test tubes add a lid to each of the tubes in the racks and place a piece of autoclave tape on the side of the rack 4. For the 250mL and 500mL flasks add a cotton stopper and then cover the top with aluminum foil and add autoclave tape. 5. For the 250mL flasks with aeration indents in the bottom place a metal lid and a piece of autoclave tape. 6. For large flasks and glass measuring cylinders place aluminum foil over and autoclave tape. 7. For the bottles screw on the lids loosely and place autoclave tape across the seal. 8. Place all glassware and test tubes into meal trays and autoclave on a gravity cycle. 9. Once the cycle is complete place all the glassware/ test tubes into the oven to dry. Again plastic on the top shelf. |
| Make sterile 100 ml bottles LB media & ddH2O | Liquid LB Media:   1. Obtain 1 liter flask 2. Prepare liquid LB my measuring each of the following on a weigh boat with the large balance near the door    1. 10g NaCl    2. 10g Tryptone    3. 5g Yeast Extract    4. 1 L dd H2O 3. Add stir bar and turn on stir plate. 4. Once mixed, distribute 100mL aliquots of LB into 100mL bottles. Label bottles and attach autoclave tape. 5. Add a ~1 inch layer of water to the bottom of an autoclave tray and place bottles in tray. Autoclave on liquid cycle.   Sterile ddH2O:   1. Distribute 100mL aliquots of ddH2O from the carboy into 100mL bottles. Label bottles and attach autoclave tape. 2. Add a ~1 inch layer of water to the bottom of an autoclave tray and place bottles in tray. Autoclave on liquid cycle. |
| Make LB plates | 1. Obtain 2 liter flask 2. Prepare LB by measuring each of the following on a weigh boat with the large balance near the door    1. 15g Agar    2. 10g NaCl    3. 10g Tryptone    4. 5g Yeast Extract    5. 1L dd H2O 3. Add a stir bar and turn on the stir plate 4. Once mixed take to autoclave room 5. Fill a metal tray from the sink with water until it is ~1 inch deep 6. Place the tray with water into the autoclave and then place the 2 liter flask into the water. 7. Select a liquid cycle and autoclave the media. Once the cycle is complete remove the flask and the tray of water. Pour the water from the tray into the sink. 8. While the media is cooling set out plates on the bench. (Placing wet paper towels around the cooling flask helps it cooler faster) 9. Once the flask is cool enough to hold comfortably. Pour the media into the plates so that just enough media covers the bottom of each plate. This is equal to ~100mL so 1L of media should make 40-50 plates 10. Once all the media has been poured let the plates cool until solid. Stack and leave at room temperature to dry for 2 days. Then place in plate bags, label, and put into the cold room. |
| Filling/autoclaving pipette tip boxes, containers of microfuge tubes, jars of sticks & toothpicks, and pipet canisters | 1. Collect all the empty jars, pipet canisters, and tip boxes and the dirty sticks and toothpick jars. 2. Take these into the autoclave room and place the empty pipet canisters with the others on the shelves above the oven. 3. Cover the dirty stick and tooth pick jars with aluminum foil and place a small piece of autoclave tape on it. 4. Add microcentrifuge tubes to the empty glass jars, cover with aluminum foil, and place a small piece of autoclave tape on it. 5. For the small tip boxes add the 200ul tips and for the large tip boxes add the 1250ul tips. Do this by holding the edge of the orange racks they come in and placing the whole rack into the boxes. Avoid touching the tips. Then place a small piece of autoclave tape across the opening/seal of the boxes. 6. Place all of the tip boxes and jars into a secondary metal container and then into the autoclave. Use a gravity cycle. 7. Once the cycle is complete place everything in the oven and turn it on. Make sure the pipet tip boxes remain in a secondary metal tray and are placed on the top shelf. (this is because they are plastic and could melt) 8. Do not leave the oven on for more than a day. Put the dried items away. |
| Washing glass pipets | 1. Add an AlcoTab into the metal container of the pipette cleaning device in the sink of the autoclave room. 2. Place pipettes tip down into the metal container. 3. Place metal container into the pipet cleaning device and turn on dH2O faucet. 4. Let the device run for a few hours, or until AlcoTab has completely dissolved. 5. Put washed pipettes into a metal autoclave tray and dry in oven overnight. 6. Once dry, sort the pipettes into the appropriate pipette containers (found in shelf above oven). 7. Put a piece of autoclave tape onto each pipette container and place into a metal secondary container. 8. Autoclave on gravity cycle. 9. Dry pipettes in oven for several hours after autoclaving. |
| Cleaning gel box | 1. Dump TAE out from gel box into sink. 2. Rinse with dH2O. 3. Scrub the interior of the gel box with a brush and a small amount of Alconox powder soap. Be careful when scrubbing around the wires. 4. Rinse out soap suds with more dH2O until clean. 5. Let air dry on a lab bench overnight (or at least until all H2O droplets are gone). 6. Fill with 1xTAE once dry. |