

Semester Required Supplies for OCAN 1L

OCEANOGRAPHY 1 LAB CLASS

City College of San Francisco -- Professor Katryn Wiese or Fernanda Mazzillo

To plan ahead and be sure you're ready for each lab of the semester, here are the materials you will need to gather for each week):

FOR ALL LABS:

- Hard copy of [Oceanography 1 Lab Manual](#)
- Calculator (*phone calculator is acceptable*)
- Pencil and eraser
- Scratch paper

THE FOLLOWING LABS REQUIRE EXTRA SUPPLIES:

Pay attention to these additional materials, which you will need to access/purchase for future weeks:

- Measurements Lab
 - [Protractor](#) (*can be purchased at most drug stores or grocery stores, like Walgreen's, Target, or Safeway*)
 - **Metric ruler** (has cm and mm) -- might have one ON your protractor
- Latitude and Longitude Lab
 - Protractor
 - [Compass](#) (physical one or phone app)
 - **Google Earth Pro software** download (download is free, but you'll need to have a tablet, laptop, or desktop that will allow that download -- if you can't, then contact instructor ASAP)
 - Clear plastic surface like a page protector with a pen to write on it
- Bathymetry Lab
 - Protractor
 - Google Earth Pro
- Deep Sea Chemistry Lab
 - Red cabbage -- ½ a head
 - Seawater sample -- about 1/2 liter, or a small water bottle (*at home: collect one sample -- if no ocean nearby, use lake water or river water*)
 - Straw (1)
 - Sugar
 - CaCl_2 -- calcium chloride pellets -- pick up at hardware store either as "pickle crisp", "damp rid", "ice melt", or "for home brewing or cheese making." Just be sure that you get pure calcium chloride (no additives). (*NOTE: If you cannot get it pure, don't get it at all, because the reaction won't work.*) *Suggestions:*
 - Home Depot: [Pellets \(\\$15\)](#)
 - Ace Hardware [Damp Rid Pellets \(\\$14\)](#) | [Pickle Crisp \(\\$7\)](#)
 - Amazon.com [Pickle Crisp \(\\$10\)](#) | [Cape Crystal Brands \(\\$8\)](#) | [Larissa Veronica Brand \(~\\$5\)](#)
 - Baking soda (NaHCO_3)
 - Vinegar (Acetic acid: CH_3COOH)

- Bleach (NaClO)
- Seltzer water (sparkling water) -- enough to fill one glass/beaker
- 6 glass beakers and 3 spoons (*at home: use glasses, measuring cups, and spoons -- just ensure the glasses are transparent -- drinking glasses are fine, preferably all the same size*)
- Ice (just a few ice cubes)
- Toothpick
- Pen and paper for labels
- Kettle or pot/pan/microwave for boiling water
- San Francisco Bay Chemistry Lab
 - Salt
 - 5 Beakers and 1 spoon (*at home, you can use glasses, measuring cups, and spoons*)
- El Niño and Upwelling Lab
 - Colored Pencils