Purpose

The purpose of this SOP is to provide instruction in the proper use of the fixed angle centrifuge.

Materials

1. 70% ethanol
2. Kimwipes

Methods

1. Select the appropriate rotor for the run. Wipe down the rotor and centrifuge chamber with 70% ethanol. DO NOT USE BLEACH (this will corrode the rotor and chamber). Place the rotor upside down to allow the sample cups to dry.
2. Prepare suspensions to be centrifuged in appropriate tubes. The volume should be ~75% of the tube capacity. Do not exceed 75% tube capacity.
3. Confirm that each pair of tubes is balanced by weighing them. Improperly balanced samples will significantly damage the centrifuge and is a major safety hazard. Ensure tube lids are correctly sealed (rubber O-Ring in place, lid tightened).
4. Place tubes in the rotor, ensuring samples are appropriately balanced (sample tubes of the same weight must be directly across from each other).
5. Switch the centrifuge ON. Open the chamber door.
6. Install the rotor by placing the rotor base on top the drive spindle. Check that it is securely fitted and centrally located on the spindle.
7. Place the rotor cover on the rotor base and lock the cover into place by turning the rotor knobs counterclockwise. If there are two knobs, lock the lower knob first, then the upper knob. LOCK THE KNOBS TIGHTLY BY HAND—do not use tools as this would damage the equipment.
8. Check that the rotor is firmly attached by attempting to lift it off the spindle. You should not be able to do this. If it can be lifted off the spindle, unlock the rotor and start again at step 5.
9. Close the chamber door.
10. Choose the appropriate rotor code (these are listed on a sheet attached to the rotor storage shelf).
11. Program in the appropriate run time, speed and temperature. NOTE: Each rotor has a maximum speed it can spin at—refer to the sheet on the rotor storage cabinet for the appropriate speed range for the rotor that is being used.
12. Close the chamber door.
13. Push the START button to begin running the suspensions.

14. Use the log sheets to report run information including your name, lab name, rotor used, speed, run start time and estimated run time.
15. Once the centrifuge is done running and has come to a complete stop, the chamber door will unlock. Open the door to retrieve the samples. Do NOT attempt to open the chamber door until the rotor has completely stopped (0 RPMs).
16. Leave the door open and shut off the centrifuge. Remove the rotor from the spindle. Clean the entire rotor with 70% ethanol and put the rotor back on the storage shelf. Wipe down the inner chamber of the centrifuge with 70% ethanol. DO NOT USE BLEACH. Once completely dry, shut the chamber door.

Report any problems or equipment damages to the Spokane lab services group (spok.labservices@wsu.edu, 509-358-7621).