

### **Basic GC-MS Operation    Compressed Draft 4    For Chem 355 Organic Unknowns Lab**

Note: The following assumes the gc/ms program has been opened and warmed up; that an appropriate “method” and “sequence” have been selected; and that Jasperse will turn things off.

### **Sequenced Data Acquisition: Using the Autosampler to Sequence Runs Automatically**

Note: this assumes that Jasperse has already prepared a “sequence”, but you are trying to add your sample to the lineup.

- If you're first in line, get Jasperse to come and help. Or hit “OK” and “Run Sequence”.
1. **Add your sample to the back of the line in the autosampler.**
    - Do NOT leave any open holes (unless the sample belonging in that hole is being sampled and is in the injector tray.)
    - Filling a “sample-is-in-the-injector-tray” hole will cause a system freeze. When the machine tries to put the injection sample back, it will have no place to go.
  2. **Open “edit sequence” by clicking the “edit” icon on the yellow panel high on the computer screen.**
    - This will open a spreadsheet that you can edit.
    - Add your names in the “sample” box that goes with your vial number.
    - **Click OK.** Note: if you don't click “OK”, the machine will freeze at the end of the current run. NEVER leave the spreadsheet page open unless somebody behind you is going to close it.

### **Data Processing/Analysis: Getting and Printing the GC Graph, % Report, and/or Mass Spec.**

- Note: data analysis can be done while acquisition is ongoing.
  - Note: Data files are in a Data Folder, usually open on the left. Or, you can click “Data Analysis from the yellow panel on top of the GC software field.
3. **Open a data file: double click** with the **left mouse button** to.
    - Data file will have the names “Vial-1” or “Vial-2”, so **remember which vial was yours.**
    - Your data files should be within an Organic Lab folder.

### 4. **Printing GC Graph, % report, and retention times: Click Method>Run Method**

- Repeat as many times as needed to provide prints for each student in your group.

### 5. **Printing Mass Specs: Click the 5th Hammer button.**

- Click the 5th hammer button as many times as needed to provide prints for each student in group.

Note: You don't need to wait for a print to finish before clicking the hammer again. If you've got 5 partners, just click the hammer five times and the prints will come out one by one....