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….