

## 9.4 UV-Vis Operation Guide<sup>1</sup>

*Guidelines for measuring a UV-Vis spectrum using the Perkin Elmer Lambda 35 UV/VIS Spectrometer for the Protein Assay Experiments with Automatic Cell Feeder*

1. Turn on computer
2. Insert your personal jump drive into the top USB port on the front of computer
3. On the main screen double click on the Perkin Elmer UV WinLab icon top right corner of the screen
4. At Perkin Elmer login message User name must say student or students click OK and you will see the Base Methods appear in the left hand part of the screen
5. Left click on Protein Assay Method Module you are running. Sample info window then loads. Samples box at top of the screen should read 0. Do not change the cell or carousel numbers; Insert a blank UV cuvette into the cell changer position 1. When ready press Start button at top of page. This is your air blank, which is running.
6. Message appears to remove sample. Open door remove the empty cuvette and place your distilled water/buffer blank in position 1 (extreme lower left port on cell changer) this will be scanned as a blank to produce a spectral background. Never touch the clear sides of the cuvette since it will always be in the path of the light beam. Keep the exterior of the cuvette clean and dry before inserting it. Close the door and say OK to the message.
7. After about a minute another message appears asking you to insert your samples into cells 2 thru 8 respectively depending you can run up to seven standards/samples simultaneously. Open the door insert the samples in correct order. Close the door and say OK. Machine begins to scan samples and overlay the graphs one at a time. Once the standards/samples have been run it will ask you to load the final samples follow the instructions then say OK.
8. Message then appears that all samples in the table have been run say OK. Calibration message appears answer it OK.
9. Now on the left side of screen click on the word Output then go up to the top and click on file then select report. Say OK to Print and it will print your graph and or your list of absorbances v. concentration values. We are using a quadratic graph for the method.
10. Now Save Data to your jump drive which you inserted previously, go to File then select Save Results then choose As a New Task you will then name your file and save task message. The computer creates a new folder by that name on your removable jump drive
11. To safely remove your hardware device from the computer look for the green icon on the lower bottom right side called Safely Remove Hardware Icon click it and a Safely remove hardware message opens select the task and click Stop a hardware device window opens select your device from the menu and say OK. Message appears at bottom of screen that it is safe to remove Hardware. You can now pull out your USB device.
12. TAs only clear out the TASK folder on a weekly basis deleting the files.

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