Biology 204 Human Anatomy & Physiology

Computing in the Physiology Lab

The Science Network
The sciences at Monmouth College have collaborated to create a mixed platform network that includes PC, Macintosh, & UNIX computers. It is designed to be robust and decentralized to achieve the flexibility needed for multi-disciplinary scientific computing.

Using a Macintosh
We use Macs in the physiology lab because PowerLab hardware interfaces better with them than with PC's. As part of your broad-based training, it is a good idea to be fluent in more than one computing platform. Macs are commonly used in scientific, educational, & graphics oriented environments.

The Macs in the lab are dual-boot machines, meaning that they can boot up into OS 9 or OS X (ten), a derivative of the UNIX operating system. To use the PowerLabs, you must be booted up in OS 9, which is indicated by a small, multicolored apple in the upper left hand corner of the screen. OS X indicates a large blue apple in the upper left hand corner. Beware: OS 9 can also run within OS X in a mode called "classic emulation", which will eventually cause the PowerLab to freeze-up. If you are in OS X, go to the blue apple, scroll down to system preferences & select it, then go to the system category & select startup disk, which will give a choice of OS X or OS 9. Select OS 9 and then restart the computer by selecting restart from the blue apple menu.

Web Access
You will have web access from these computers, which includes web-based email. You may wish to email files to yourself so that you may access them from the campus PC-based network. **After you are finished, be sure to close _and_ quit out of web browsers so that no one else can access your account.**

File Sharing
Files that are in the "shared folder" on the desktop can be shared with other machines. You can make files available to move to another machine on the network by placing them in or copying them to the "shared" folder on each desktop. To access files on another machine, go to the Apple menu (upper left corner), select chooser, click on the "AppleShare" icon, then choose which machine you wish to mount on your desktop. Click "guest", and the "shared" folder will appear on your desktop. You can now move files to or from it. Once files are in the shared folder on a machine, they can be moved to another folder on that machine, (which cannot be accessed from elsewhere on the network), or to removable media (i.e., floppy or zip disks) mounted on that machine.

Save as...
If you would like to do work on a PC, save your word processing documents as rich text format (RTF). This can be read by Word, Word Perfect, and most other word processors. Spreadsheet data should be saved as SYLK files, which can be read by Excel or Lotus or as tab delimited text, which can be read by spreadsheets and many statistical packages. The AppleWorks 6 suite has built-translators for Microsoft Word and Excel.

File Management
You can create your own folder on the computer and place files in it, or if the computer has a floppy drive or zip drive you can save to those media. If it does not, you can use file sharing to transfer files to a machine that does. Please supply your own media. Macs can read and write to PC disks, so you do not have to buy Mac formatted disks, and can read your files on your PC (see below). You can also email files to your campus email address using web-based email. If you leave files on the machines without backing them up, you are exposing yourself to incredible risk! It is your responsibility to ensure that you have a backup or two. Please remove all of your files at the end of the semester. Do not remove anybody elses' files or any other files that are not yours. If in doubt, do not delete them.

Printing
Printing is currently not available in or from the physiology lab.

Programs
AppleWorks- This is an easy to use jack-of-all-trades program that does word processing, spreadsheets, database, painting, drawing, and slideshows (among other things) all in one program.

Chart- This software interfaces with the PowerLab "boxes" and gives you the ability to collect, filter, & record physiological data. Data in chart can be analyzed there or exported for use in statistical packages or spreadsheets such as Excel.

Mystat- This statistics package is a subset of the widely used SYSTAT.

JMP- This statistics package is by the same people who make SAS. Very easy to use with clear explanations of statistics in the on-line help section and manuals.

If you have questions about these or other programs on the machines, please ask.