Frequently Asked Questions: MACs

Supplement to the:
Recommendations on Computers for Incoming 1st Year Students
Arriving in August 2015
U.Va. School of Engineering and Applied Science

Q: I hear that Windows7 and Windows8 runs on the Apple Mac computers. Will a Mac laptop work for me if I'm an incoming engineering student?

Response by Prof. M. C. Rosen, CTO, U.Va. SEAS Posted: 5/1/15 [rev. 1]

A: Most of the software used throughout the Engineering School curriculum is available in editions that run on Microsoft Windows. This general compatibility is not the case for the Mac OS or Linux.

If you feel comfortable providing your own self-help technical support, and are willing to find creative ways to get your work done should it turn out that a particular program or device doesn't operate properly, then maybe you are a Mac person.

It is possible to make the Mac work in most cases-- but it depends on your familiarity, and interest to work with computers – and as mentioned, that you're comfortable being more self-supporting. That is up to you and how you feel about it.

Last cycle, Fall 2014, approximately 21% of U.Va. engineering students brought a MAC. (This was similar to 2013 at 22%.) From what I heard, Mac adopters make out okay in general, but a good portion have difficulty with running the software used in the Intro to Engineering first-year course.

Also, students enrolled in different majors use a different mix of software applications, but I can not recommend computer hardware or a non-Windows operating system based on major. This is because about half of our incoming students don't know what major they want. Another factor is that a portion of those that targeted a particular major when applying to U.Va. Engineering wind up changing their mind once enrolled after learning more about the various choices in majors and minors that we offer. (As an example, one of our most popular minors is the 'Engineering Business Minor' which includes courses from U.Va.'s Commerce School that has similar recommendations supporting Windows-based machines.)
Running Windows on a Mac

Technically, there are a number of ways to make it work.

If you weren’t aware, the University implemented a remote access method to run some Windows editions of U.Va. licensed engineering, math and science software. These software titles can be accessed and run from a Mac or a PC. It is known as the U.Va. HIVE. More information is available at: [http://www.its.virginia.edu/hive/](http://www.its.virginia.edu/hive/)

Unfortunately, not all of the titles used in engineering courses are part of that initiative, and the need to run some Windows application software on your laptop remains.

If you are interested in pursuing the MAC option, here’s some detailed information that you might find useful:


[2] Running Windows under a virtualized environment is one path. On Intel-based Macs, leading choices include Parallels, VMware Fusion, and Virtualbox. (Emulation software such as Codeweavers CrossOver is less likely to be successful.)

Many Windows applications will work under such virtualization. However, software versions are updated each year and there's no way to test ahead that all the Windows-based software or your devices (incl. some peripherals) will work correctly in that mode, and that the virtualization not interfere when you are trying to work in the Mac mode.

The use of Parallels*, Fusion & Virtualbox (a free download) consumes system resources (CPU, RAM) when running Windows sessions/software. The choice of MAC hardware model is relevant. For example, a MacBook Air configured with 2GB RAM would not be sufficient.

Note too that keyboard mappings are different as well as the mouse operations on the Mac compared with Windows. When running Windows software or running even just in virtualization modes, this takes some getting used to even for some experienced users.

[3] An alternative that only shares hard drive space, but not system resources is Apple's BootCamp.

Even though BootCamp is included by Apple in the current operating system, Apple's support does not cover a lot of questions on Windows running on their hardware, Microsoft doesn't support Windows running on Apple hardware, and the U.Va.'s ITS Computing Help Desk ([http://its.virginia.edu/helpdesk/](http://its.virginia.edu/helpdesk/)) does not support dual boot or virtualization modes.

The bottom line is in either the virtualization mode or dual boot mode, you're on your own to try and make it work.

*Parallels is available as a $39.99 student edition on a thumb drive at Cavalier Computers.

Reference Links:


Information on Computers for Incoming 1st Year Students arriving August 2014 [http://infotech.seas.virginia.edu/firstyear](http://infotech.seas.virginia.edu/firstyear)