Computer recommendations

School of Computing

Our programs are designed to be platform independent so a Window, Linux, or Mac machine will do, preferably a laptop. One thing freshmen should keep in mind is that cheaper, low end machines may not be powerful enough to run the software built 4 years from now, when they're seniors. They also tend to be less stable. So a machine that is mid-level to high-end is preferable. Battery life and RAM will be the most important things to look for. We never have enough outlets in classrooms, so you will depend on your battery; RAM is what will keep you from getting frustrated running large or multiple processes. Processor, screen size, graphics card, hard disk are personal preference; just about any machine that comes with 16 GB of RAM will have adequate specs.

Cyber Physical Systems Engineering

Students will use software that is only well supported in Windows.

Game Programming and **Computer Science/game systems concentration**

Student will be better served with a Windows machine. A Mac with dual boot can work although there have been issues with Apple not supporting Vulcan very well.

Data Science

- At least an i5 or equivalent AMD machine (AMD Ryzen 5). There are generations of these. A recent one from this year or last year is fine.
- At least 8 GB RAM. 16 GB recommended.
- Storage there is SSD and HDD. SSD's are faster but much more expensive. These days it is either 1 TB SSD, or 1 TB HDD coupled with something like 256 GB SSD. There are many combinations. This depends on how much files you will store on the PC. It should be no less than 512 GB.
- Low end computers don't have GPU. These days there cheaper laptops and PC's which include a GPU.

School of Design

Graphic Design

MacBook Pro (or comparable Windows laptop) with Adobe Creative Cloud. Mac is preferred as it is the standard in the industry—and it's what your professors will be familiar with—but a Windows machine is equally capable.

User Experience Design

We do not have a specific recommendation in terms of a suggested personal computer. Either a PC or a Mac would work for most situations in the UXD program (ex., prototyping software). There is a particular program, Sketch, that does not currently work on PCs, so that would be one consideration. Most other software you'll use (like Adobe products) work on both systems or have a cloud based version.

Game Design

A laptop or desktop running Windows (7 or higher, 64-bit) is preferred to allow students to work easily across a range of game development environments, though Windows 10 (64-bit) is recommended. We recommend a 2.5 Ghz processor, 8 GB Ram, and a discrete video card with DirectX 11 support and at least 2GB of Ram. Alternatively, a MacBook Pro has its benefits, as it can run both Windows and Mac operating systems as well as be used for iPhone game development. Regardless of your operating system you'll want to avoid systems that use an integrated Intel graphics as their main graphics chipset as they just don't hold up when you begin to work on more complicated uses of most commercial game engines.

Industrial Design

A Windows laptop (10, 64-bit) is preferred to run CAD software like SOLIDWORKS, but a MacBook Pro that's dual-booted will also work. Optimal recommendations would be 512GB SSD, 64GB RAM (32GB minimum), Core i7-1185OH or comparable processor, and nVidia RTX A2000 or better GPU.

School of Cinematic Arts

Film and Television

Hardware
Mac or PC laptop or workstation.

Laptop Display: 1080p (1920x1080) or 1440p (2560x1440) recommended for laptop machines. Larger screen size is more important than resolution.

RAM: 16GB minimum, but 32GB highly recommended especially for Editing and Visual Effects courses.

Desktop Graphics Card: 4GB onboard memory minimum. If looking to build or buy a desktop system, a NVIDIA GTX 1660Ti is the minimum requirement, and an RTX 2060/2060 SUPER, or better card is recommended. AMD Radeon 5700 XT or better will also work, but NVIDIA is preferred for its proprietary encoding solutions (NVENC).

Laptop Internal Storage: An SSD for the base OS, and a hard drive or additional SSD for extra storage capacity. 1TB is the recommended minimum, however, more is preferable.

Desktop Internal Storage: 500GB SSD (M.2 nvME OR 2.5") & 1TB Hard Drive are recommended minimum. More storage is better, opting for a larger hard drive vs larger SSD is the most cost effective.

Ports: Thunderbolt 3, USB-C, USB 3.0, and Ethernet (for networking) all recommended. If using a laptop, usb hubs are a recommended accessory to expand connectivity. The reference photo below points out the labeling used to distinguish Thunderbolt from USB C.

External Hard Drive: 2TB or more with Thunderbolt 3 or USB-C connectivity. The drive should be formatted to exFAT after purchasing so it can be used with both PC and MAC workstations.

Hardware Discounts
Students are eligible for hardware discounts from preferred vendors.

Questions
If you're still unsure about what hardware to look for, or have another personal hardware question, contact scaavsupport@depaul.edu.

Animation

The animation program recommends that students wait until after their first year to determine if they need their own computer. This will give them time to figure out what their interests are in animation which will in turn dictate what setup best fits their needs.

Priority Specifications

● The most powerful processor possible, for Intel and AMD CPUs, i7/i9 and Ryzen 7/Ryzen 9 should be preferred over 3 or 5 series processors, even if the latter are newer.

● A discrete graphics card from either AMD or NVIDIA is recommended. The more *video memory* (GDDR5+) the better.

● The main drive, containing the OS, should be an SSD, with a secondary, larger HDD drive for storage.

● Much like the rest of the School of Cinematic Arts, a larger display will be useful. If buying a laptop, a physically larger screen takes precedent over a higher resolution screen. 1080p or 1440p is the highest necessary resolution, 4K is more demanding on the machine and detracts from performance.

● If looking to do drawing, consider a machine with pen input support, or buying a separate drawing tablet to use with the machine.

Mac or PC

The animation program is designed for *either* platform to be used. The animation labs on campus are predominantly PC based. The software that students will use in class is available for either platform. Students focused on 3D Animation will likely benefit more from a PC based system as it is native to most 3D software and hardware.

Hardware Discounts

Students are eligible for hardware discounts from preferred vendors.

Software Recommendations

Our labs are loaded with all software our students are required to use for class. If students wish to purchase copies for their own computer they should consider the following:

- Adobe Creative Cloud (CC): Available as a month to month purchase. Photoshop, After Effects, Premiere, Animator, are the most commonly used applications. Students interested in motion graphics may also want to get Adobe Illustrator. These are available as part of a suite or for individual purchase. Information about software downloads and discount offers can be found here.
- Autodesk Suite: This is essential software for all 3D animators. It includes a full range of Autodesk products including Maya, Max, Mudbox, and Motionbuilder. It is available as a free download for current students at https://www.autodesk.com/education/free-software/featured.
- TV Paint: Excellent and versatile software for 2D animators.

Questions

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