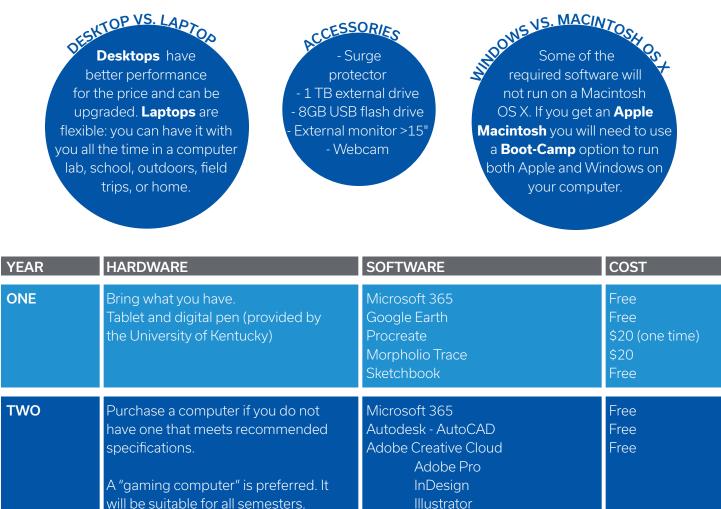# Computer Requirements and Recommendations

This document provides guidance on computer requirements and recommendations for students studying landscape architecture. Students are required to have a computer by the fall semester of the second year of study. If you decide to purchase a computer in the freshman year, please follow these same recommendations to ensure you have an adequate computer for the duration the program.

DESKTOP VS. LAPTOP

Desktops have better performance for the price and can be upgraded. **Laptops** are flexible: you can have it with you all the time in a computer lab, school, outdoors, field trips, or home.

ACCESSORIES

- Surge protector
- 1 TB external drive
- 8GB USB flash drive
- External monitor >15"
- Webcam

WINDOWS VS. MACINTOSH OS X

Some of the required software will not run on a Macintosh OS X. If you get an **Apple Macintosh** you will need to use a **Boot-Camp** option to run both Apple and Windows on your computer.

YEAR	HARDWARE	SOFTWARE	COST
ONE	Bring what you have. Tablet and digital pen (provided by the University of Kentucky)	Microsoft 365 Google Earth Procreate Morpholio Trace Sketchbook	Free Free $20 (one time) $20 Free

TWO	Purchase a computer if you do not have one that meets recommended specifications.
	
	A "gaming computer" is preferred. It will be suitable for all semesters.
	
	Optional but recommended: additional monitor and external drive to backup your work.
		Microsoft 365
		Autodesk - AutoCAD
		Adobe Creative Cloud
		    Adobe Pro
		    InDesign
		    Illustrator
		    Photoshop
		    Premiere
		SketchUp Studio Educational
		Lumion Educational
		Land FX
			Free
			Free
			Free
			
			$55/yr
			Free
			Free

THREE		ArcGIS Optional Software: Revit, Civil 3D, 3DS Max (via Autodesk) Optional Software: Rhinoceros	Free Free $195
FOUR		All of the required software listed above.	

Computer Requirements
* Operating System: Up-to-date 64-bit Operating System (Windows 10, Mac OSX 10.13+)
* CPU - Processor: Quad Core or better Processor (Intel i5, i7 series, AMD Ryzen 5)
* System Memory (RAM): 32GB of RAM or more (64GB or more if expecting to create very detailed high-end renderings using software like Lumion)
* Solid State (flash) storage, 256GB+
* Graphics Card Memory: Discrete graphics card with 10GB or more of video memory (16GB or more if expecting to create very detailed high-end renderings using software like Lumion)
* Screen resolution: Minimum 1920 x 1080 pixels
* Hard Drive: SATA3 SSD or NVME m.2 storage
* Hard Drive Space: Minimum 75 GB

MacBook Pro line does meet a lot of the requirements, but you will likely have to install Windows 10 on the device (using a free tool provided by Apple called Boot Camp) to use all software required for your degree work in Landscape Architecture. If you wish to preserve your Mac portion of the hard drive and switch between both operating systems, you will need to buy a Macbook with larger internal storage (at least 500GB).

Any "gaming" computer will perform the tasks required by your coursework in Landscape Architecture, and an adequately powerful machine will be suitable for all semesters of your degree program.

Good "out of the box" brands and lines of laptops
* MSI Stealth
* Alienware
* Dell G5 series
* Asus ROG, TUF series
* Razer Laptops
* Lenovo Legion
* Acer Helios or Predator lines
* Some high-end Surface Book models
* Higher end Macbook Pros
* HP Omen

You should expect to pay around $800-1600 for a good "gaming" laptop. These are often heavier and have worse battery life than standard laptops because of the higher level of performance and power offered.

Desktops offer a better price-to-performance ratio than any laptop. Students further in their degree programs may consider purchasing or building their own desktops for use in the studio space. The same general computing requirements apply. When in doubt, more is better on all component areas.

Additional information on software
* Adobe Creative Cloud: https://www.adobe.com/creativecloud.html
* Autodesk: https://www.autodesk.com
* SketchUp Pro: https://help.sketchup.com/en/sketchup/system-requirements
* Lumion:
  – System requirements: https://lumion.com/product/system-requirements
  – *Computer hardware advice for faster 3D rendering in Lumion 2023*: https://lumion.com/tips-guides/computer-advice-faster-3d-rendering
  – *Which laptop PCs do you recommend for Lumion 2023?*: https://support.lumion.com/hc/en-us/articles/360003476813-Which-laptop-PCs-do-you-recommend-