

New Laptop

The laptop market is huge, with a wide range of different models available.

Laptop computers can vary greatly in price, with more expensive models usually reflecting greater CPU, RAM, screen quality and storage space. Your budget should be determined by the kind of work you intend to do. There is no one-size-fits-all approach, so it may help if you take the time to note down your needs and personal preferences to avoid feeling overwhelmed by choice. Recommend you go for the highest specification available within your budget.

Key Features to consider:

- PRICE \$\$\$
- Operating System
- Pre-Installed Programs
- Screen Size
- Graphics Processor
- Processor (CPU)
- Memory (RAM)
- Hard Drive Size and type
- Battery Life
- Charging Connection
- Ports for connecting external devices
- Optical Drive - Newer Laptops do not have optical drives

There is a new player in the Laptop market and that is the CoPilot+PC

Copilot+ PC specifications require a dedicated AI processor (NPU) with at least 40 trillion operations per second (TOPS), along with a minimum of 16GB of RAM and 256GB of SSD storage. Compatible processors include the Qualcomm Snapdragon X series, Intel Core Ultra 200V series, and AMD Ryzen AI 300 series. These are the minimum requirements to be considered a Copilot+ PC and run its AI features like Recall. **Not recommend for the average user.**

Desktop & Laptop Operating Systems

- Microsoft Windows (Windows 11 Pro & Home)
 - Windows 11 features a highly locked-down educational operating system known as Windows 11 SE, as well as a consumer security

setting called Windows 11 in S Mode. These modes limit unauthorized app installations.

- Apple macOS
- Linux – User-friendly distributions like Ubuntu, Mint and Fedora are highly popular for everyday users.
- ChromeOS: Google's lightweight operating system designed specifically for Chromebooks. Relies heavily on web applications and cloud storage.

Pre-Installed Programs

Windows Laptops will come with pre-installed Third Party Anti-Virus Program (Trial Version 30 Days). This you should uninstall first thing. Windows 11 comes with an Anti-Virus Program called Windows Security. A third party anti-virus program is not required and will just slow down Windows and cause other problems

Besides the Anti-Virus programs, your new laptop will also come with other programs pre-installed. One will be a Trial Version of Microsoft 365.

Don't let salespersons talk you into purchasing Anti-Virus programs. They work on commission.

Screen Size

Screen size and weight: Laptop Screen sizes are measured in Inches and range from 11.6 up to 17.3 inches. The larger the Screen Size the more it will weigh and cost.

Touch Screen: Some models of laptops, like the 2 in 1, will have a touch screen. A touch screen will cost more.

A 2 in 1 laptop is where the screen folds back over the keyboard to form a Tablet.

Graphics:

There are two basic types of GPUs - integrated GPUs and discrete GPUs. Learn about the different types of GPUs and find the one that meets your needs.

Discrete GPU's will cost more. Example: NVIDIA® GeForce RTX™ 5080 is a high end GPU and a laptop with this will set you back over \$5000.00.

Processor

CPU: A computer's central processing unit, or CPU, controls the action and data flow in the computer. There are three major manufacturers of computer processors: Intel, AMD and Qualcomm. Each of these companies have a variety of processors to choose from. Avoid the lower end processors like the Intel Celeron.

Recommended: Intel Core - i5 or the AMD Ryzen 5.

The Qualcomm CPUs are very specialized and can only be found in the Copilot+PC.

Memory

RAM – Recommend size 8 GB minimum, 16 GB preferred.

Hard Drives

Hard Drives are where all your data/programs are stored. They come in different types and memory sizes. The two hardware types you will find in modern laptops are SSDs (Solid State Hard Drives) and M.2 Solid State Hard Drives. Some laptops may still come with the older mechanical 2.5 inch drives.

Recommended: 512gb NVME M.2

Some models may have provisions for TWO M.2 drives.

Batteries and charging connections

Many modern laptops can now charge via USB-C connections in place of Old-School AC barrel chargers and a charging brick. This special port can be used both as a regular USB-C port and for charging. It may be labelled PD.

Some laptop models now have built in batteries that cannot be removed.

Check your specifications for battery life.

Ports for connecting external devices

- USB-C
- USB-3
- HDMI
- RJ-45 Ethernet
- Audio (Mic and Headphone)
- Blue-tooth (not a port, but a wireless service for connecting a Mouse or other Bluetooth devices.

Check the laptop before you purchase and make sure it has the ports you require.

Laptops no longer have optical drives (DVD/CD). You can purchase an external USB powered Optical Drive.