

Laptop Specifications

All first-year students within the Faculty of Economic and Management Sciences must try their best to have a personal laptop. Although Stellenbosch University has very modern, shared computer-user areas for all students on campus, it has become clear that a personal laptop is of immense help. This document aims to provide recommended specifications for a laptop. Please note that some subjects like Computer Science (programming), Datamining and/or Mathematics will require higher specification equipment).

We strongly recommend the purchase of a **Windows-based system** as it is the only operating system platform that supports all the software we use in the faculty. (Some software is not available on the Linux and MAC OSX platforms.)

Please note: Even though Windows 11 is stable and comes with most new devices, we shall continue to use Windows 10 in our labs for the near future. Support for Windows 10 expires only in 2025. You are welcome to use Windows 11 on your own device as its fully compliant and compatible with the software we use but when buying be warned that there are stringent compatibility and specification guidelines for devices to run Windows 11. The full specifications are available at <https://www.microsoft.com/en-us/windows/windows-11-specifications>. However, the most important specifications (which might impact your decision) are:

- Intel processors must be of generation 8 or later.
- Intel Trusted Platform Module (TPM) version 2 must be available.
- UEFI boot support.

If uncertain, please ask the vendor to supply a written confirmation that the device is Windows 11 certified – compliance is not good enough.

The following specifications are suitable minimum specifications for laptops for first-year students in the faculty:

1. **Core i5.** Should a student currently own a Core i3, it will be sufficient for those students entering into programs that do **not** require intensive numerical processing (most programs in the Faculty do) or manipulation and processing of large datasets. Students do not need to replace their i3 for next year but will most probably need to consider upgrading it in later study years. The University does not have expertise on, or support for, the AMD range of processors. However, the minimum equivalent is set at an AMD Ryzen 5 1400.

*Should you consider taking subjects in Computer Science (programming), Datamining and/or Mathematics in later years, a higher specification processor such as a **Core i7 (AMD Ryzen 7)** is advised.*

2. **8 GB Ram.** It is the minimum requirement for modern operating systems as the operating system itself uses between 2 to 4 GB of the resources. Consider 16GB of ram if you purchase a Windows 11 device as the operating system is more resource intensive.
*Should you consider taking subjects in Computer Science (programming), Datamining and/or Mathematics in later years **16 to 32 GB RAM** is advised.*
3. **512 GB Class 40 Solid State Drive (SSD).** We strongly advise against any spindle drive as primary drive. Even the slowest speed SSD makes a huge difference in performance. If you need storage capacity, purchase a device that can house multiple hard drives and use the SSD as the "boot drive" or use external USB spindle storage. Should you currently have a Core i3 or i5 without SSD, you do not have to purchase a new laptop. However, consider it when you have to upgrade in later study years.
*Should you consider taking subjects in Computer Science (programming), Datamining and/or Mathematics in later years a **512 GB or larger Class 40 Solid State Drive (SSD)** is advised.*
4. **Windows 10 or 11 as operating system.** The reason for this requirement is that some academic software is not available on the MAC OSX and Linux platforms. Also, there is no official in-house support for those platforms.
5. **Microsoft Office products:** Keep in mind that once you are registered as a student, you will have access to free Microsoft Office licences for the duration of your studies. You will also have ample storage space in the Cloud.
6. As online teaching, meetings and practical sessions with live view and interaction have become a reality, an **integrated webcam** has become essential. It also allows for remote proctoring of assessments. Again, should you currently have a laptop without this specification, do not replace it now, but consider it when you upgrade in later study years.
7. Other **considerations** when buying:
 - Touch screens are optional but are becoming increasingly important in the way users operate.
 - Bluetooth 4 as minimum, preferably 5. The later versions are power-efficient, faster and backwards compatible. Some newer devices you want to connect to might not be backwards compatible.
 - Please opt for a known and proven network card. Network cards are usually backwards compatible and should support WiFi Standards a,b,g,n,ac,ax. a,b,g, is for backwards compatibility but the WiFi card should at least meet the n specification.

If you have any questions, please send an email to emsinfo@sun.ac.za. We can also provide you with a personalised letter if that is required for bursaries and/or loans.