ACE Department Laptop and Internet Specifications for Winter 2022

Introduction to Business Information Technology (IBIT)
Business Information Technology (BIT)
Business Technology Management (BTM)
Information Security (InfoSec)
Data Science and Machine Learning (DSML)

For the Winter 2022 term, your laptop and internet connection need to be suitable for both on-campus and remote learning. This means you need to have:

- A good home internet connection (see requirements below)
- A working camera and microphone so you can interact with your Instructor and classmates during online classes
- Your Virtual Machine (VM) downloaded and ready to go. We will provide instructions in separate document

Your program requires you to use of a laptop computer for all of your courses. In order for your laptop to work smoothly so that you can complete all your course work, your computer must or exceed the specifications in this table:

Component	Minimum	Recommended	Considerations
Brand		PC laptop	Mac computers are not recommended. If you already own a Mac laptop, contact us to see if it meets the requirements. You may encounter some differences in software when using a Mac and will have to adapt to meet course requirements.
Processor	Intel Core i7 (release date 2014)	Intel Core i7 (Release date 2019)	An Intel i7 processor is the minimum required to run software used in the program.
Processor	AMD Ryzen 7 3700X	AMD Ryzen 7 5800X	A Ryzen 7 3700X is the minimum required to run software used in the program.
Memory	16 GB RAM	16+ GB RAM	Memory is a relatively inexpensive upgrade that can result in a significant performance increase.
Hard Disk Drive (HDD) OR Solid-State Drive (SSD)	750 GB with at least 400 GB of free space	1TB+, with at least 500 GB of free space	A solid-state drive (SSD) is a great option but is costly and therefore is not required.

USB Ports	Two available USB ports (3.0 standard)	More than two available USB ports (3.0 standard)	USB ports are used for peripherals and input devices such as a mouse, or external keyboard. After plugging in your input devices, you still need to have at least one free USB port for course requirements.
Ethernet (LAN) port	10/100/1000BASE-T Gigabit Ethernet – RJ-45 connector		If your laptop doesn't have an Ethernet port, you need a USB adapter.
Wi-Fi wireless networking	IEEE 802.11n specification compatibility		When we return to campus, Red River College provides wireless (Wi-Fi) network access in addition to wired connections.
Screen Size	13 inches	15 inches +	Also consider the maximum resolution that your laptop will allow.
CAT6 Network cord	4 feet	7 feet	When we return to campus, you will sometimes need to use a wired connection instead of relying on WiFi. At home, a wired connection may give you better internet speed.
External USB storage device	1 TB		You will need this to back up your files
Operating System	Microsoft Windows 10 64 bit (sp1) or Windows 10 64-bit (Home edition). English version is required.	Microsoft Windows 10 64 bit (Pro or Enterprise edition)	The most recent version of Windows updates should be downloaded and installed
Antivirus	Only one antivirus program must be installed. Microsoft Security Essentials is recommended.		Ensure that it is compatible with the 64-bit version of Windows 10. We recommend that you uninstall any other anti-virus software before installing the FREE Microsoft Security Essentials.
Mouse		Mouse is recommended	You can work much more quickly when you use an external mouse
Video out	VGA or HDMI or other		When we return to campus, you will need to connect to VGA projectors for presentations.
High speed internet connection	40 Mbps downstream and 5Mbps upstream consistently		A high speed internet connection is required for online learning.

Tips on selecting a laptop

You can take this specification list to a computer retailer who will recommend laptops that meet or exceed these requirements. Local retailers may let you try the different laptops that you are considering. You can also purchase your laptop online. It is also possible to order a laptop with custom specifications from manufacturers and some retailers as well.

Spend some time reading reviews online. Consider the upgradability of the laptop: for example, if you decide to go with the minimum amount of memory (RAM), can you later easily add more? Consider purchasing extended warranty coverage on your laptop. Red River College does not have facilities to assist with computer repair.

Please also consider these factors:
- o **Battery life**. How long can you use the the laptop before charging it? When we return to campus, you will not always have easy access to an electrical outlet since not every classroom has them. A 9-cell battery offers superior battery life.
- o **Ergonomics**. , e.g., weight of the laptop, keyboard layout, mouse, screen size, etc. You will need to carry your laptop around when we are on campus again.
- o **Integrated Bluetooth** allows for data exchange with many types of devices and creating Personal Area Networks (PANs).
- o In the event of a laptop failure, you are expected to have an alternate solution so that you can still complete your assignments on time. It is your responsibility to perform DAILY backups to an external source so that you don't lose your work if your computer fails..

For additional support or questions, please contact

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