Downtown Campus - Computing Department

Bring Your Own Device (BYOD): September 2018 Laptop Specifications

Bring Your Own Device (BYOD) at BCIT is an initiative that enables BCIT students to access campus computing resources at any time through your own device, and to use their own computers for course work. The CIT & CST Diploma programs at the Downtown BCIT Campus are participants in this program, and requires all students to bring their own laptop computer to school each day. Using your laptop, you will be able to securely connect through a web browser to a BCIT managed "virtual desktop" where computing applications for your courses will be available while you are a student. This virtual desktop can be accessed both on campus and remotely, and will be used for instruction purposes in some courses.

BYOD Computing Device Requirements for DTC CIT & CST Diploma

As an incoming Level 1 student, you must provide your own computing device for classroom use that meets or exceeds the minimum requirements listed below. Your device's web browser will be used to access a virtual desktop interface where you will run BCIT-provided software applications for specific courses.

Minimum requirements[1]:

- 13-14" screen (15-17" is better, but heavier & consumes more power); HD (1920x1280)
- 16GB RAM minimum required (increased memory will have a positive impact on performance)
- 256GB SSD (512GB is better)
- Wireless standard 802.11n or Wireless 802.11ac (2x2 wireless preferred)
- Ethernet port and Ethernet cable[2]
- Two or more USB ports
- Integrated keyboard[3]
- HDMI port
- Windows 10 Operating System recommended[4]
- Current Chrome/Safari/Firefox installed web browser
- Headphones (earbuds are fine) for watching tutorial videos in class
- Built-in camera, speakers, and Bluetooth
- Power cord for recharging

[1] BCIT Computing programs officially use the Windows 10 platform as a teaching environment. While Mac and Linux operating systems are acceptable for many courses, they may present challenges in courses that focus on the installation, administration, and configuration of MS Windows.

Further platform notes:

Windows 10	(Use VMware Workstation, Hyper-V or VirtualBox to host Linux or Windows Server)
MacOS	(Use VMware Fusion or VirtualBox to host Windows 10, Linux or Windows Server)
Linux	(Use VMware Worksation or VirtualBox to host Windows 10, Linux or Windows Server Connectivity challenges with campus wifi; not officially supported by BCIT IT services)

[2] For most of your coursework a wireless connection will be used, however some networking and/or Linux exercises may work best with a wired connection. Your instructor will inform you in advance when an Ethernet cable will be required.

[3] Tablet computers are consumption devices. As a student you will be *creating* content and not just consuming it; tablet computers without keyboards (iPads, Android devices) are not suitable for this purpose.

[4] As a BCIT student you will have access to free educational licenses for most Microsoft software. If you have a laptop that meets the minimum specifications – but has an older version of windows – you do not need to purchase Windows 10. Once classes start you will have access to a copy of Windows 10 which you can install on your existing computer.

The above minimum requirements will allow you to remotely access and run BCIT-provided software applications as well as install and manage multiple virtual operating systems on your own laptop.

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Software Installation and Computer Usage

Students should have administrative privileges on the computer, and therefore a laptop that is managed by a third party (an employer, for example) would not be suitable.

It is possible for files and applications on your computer to be deleted. You will be instructed on proper procedures for backup and restore – however it is advisable to avoid using a computer that is relied on for external activities which would be negatively impacted by data loss (such as a work or family computer).

FAQ's

Do I need a computer on the very first day?

> The first day of the program is typically an orientation day, and a computer is probably not required, however most students like to use this day to make sure they can access wireless and related services.

> You will be required to bring your computer with you to BCIT for all classes and related activities/projects.

Can I use a less capable computer?

> Maybe. It really depends on your tolerance for slow response times and performance.

I have to carry my computer on transit, and I would like to carry a smaller one. How will this impact my learning?

> BCIT Computing courses often require students to work simultaneously in various applications. While this is possible on any number of screen sizes, it is optimal if students have as large a screen as practical. Additionally, your instructors need to be able to see your work on screen to provide feedback and advice. This can be challenging for smaller screen and font sizes, as they are further from the screen than you are.

SSD costs a lot more than HDD. Why do you recommend SSD?

> SSD is highly recommended for the performance increase. 500GB SSD will add to cost, but best performance increases for non-graphics applications will come from SSD and additional RAM. Would rather see a 256GB SSD than a 500GB spinning drive (HDD). You can add an external drive for storage if you require more space.

You did not recommend CPU type or speed. Is there a minimum?

> For the types of work you will be doing (IT work), performance is most likely limited by drive I/O (SSD recommended), RAM (more is better) and network speed (card throughput). Any consumer PC which meets the specifications listed above will have a processor that is more than adequate.

> As an aside, if your goal was not IT – but rather to use applications with high graphics demands (such as games) you would want to consider faster CPU's and better graphics capabilities. But you are here for IT – not games – right?

Do I need a new computer – or can I bring a previously used one?

> A used computer is perfectly fine as long as it meets the minimum specifications and is in working order.

Do I need a laptop with a touch screen?

> A touch screen is not required for the CIT or CST programs.

Is there a preferred brand, model – or recommended computer store?

> Students come with pretty much every brand and model you can imagine. In the past the only students who have had difficulties are those who showed up with old "used and abused" laptops, or with laptops that did not meet the recommended specifications. We have seen it all, from broken screens to keys that don't work to batteries that won't hold a charge to fans that no longer spin.

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