

DSML Laptop Specifications for 2021/2022

The DSML program requires use of a laptop computer; you must acquire a laptop computer and **bring it and a network cord with you on registration day**, when the **virtualization software is to be installed**, and online college resources will be introduced. Please **DONOT** install any virtualization software on the laptop before registration day as this may conflict with the RRC virtualization software. The laptop that you use in the DSML program **MUST meet the following specifications**.

The following table lists both minimum as well as recommended specifications, along with some notes to help you decide what options are best for your situation. Your laptop must meet the minimum specifications, but you are free to bring a laptop that exceeds them. You may have a laptop already, in which case you may have to upgrade components in order to meet the minimum requirements. Or, you may have to purchase a new laptop. A checklist is included in this package that you can make copies of and use to help you with your laptop purchase.

A MAC laptop is acceptable as long as it meets the minimum specs as outlined below!

Required Laptop Specifications

Component	Minimum	Recommended	Considerations
Processor	Intel Core i7 (release date 2014)	Intel Core i7 (release date 2019)	An Intel i7 processor is the minimum requirement to run software used in the program. **An AMD Processor is NOT acceptable**
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 an option but given the cost it is only an option, SATA drive is fine. I recommend purchasing an external USB Hard Disk Drive (1TB) for backups!
USB Ports	Two <i>available</i> 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		An Ethernet port IS REQUIRED .
Wi-Fi wireless networking	IEEE 802.11n specification compatibility		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	A network cord <u>WILL BE</u> required on registration day

Operating System	Microsoft Windows 10 64 bit (sp1) <u>or</u> Windows 10 64-bit (Home edition) English version is required.		A 64-bit version of Windows 10 is required.
Component	Minimum	Recommended	Considerations
Windows updates			The most recent version of Windows updates should be downloaded and installed BEFORE registration day .
Antivirus	Only one antivirus program must be installed. Microsoft Security Essentials is recommended.	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. It is encouraged that you uninstall any other anti-virus software before installing the FREE Microsoft Security Essentials.
Mouse		Mouse is recommended	Not required but strongly recommended
Video out	VGA or HDMI or other		Students may need to connect to VGA projectors for presentations.

Tips on Selecting a Laptop

- ❑ You can take this specification list to a computer retailer. They can supply you with a selection of different options that meet or exceed these requirements. Remember that **only Intel processors** are acceptable; **AMD processors are not acceptable**.
 - Make copies of the included laptop checklist, and fill them out as you consider different options.
- ❑ Alternatively, you could purchase your laptop online at one of the popular Canadian computer retail websites.
- ❑ It is also possible to order a laptop with custom specifications from manufacturers and some retailers as well.
- ❑ Consider spending some time reading reviews online. Visit local retailers and actually try the different laptops out that you are considering.
- ❑ Consider the upgradability of the laptops you are considering. For example, if you decide to go with the minimum amount of memory (RAM), can you later easily add more?
- ❑ Consider other things that you may be using your laptop for, and what specifications and features are required for these uses. Be mindful that for the next 28 months this will be your laptop for the InfoSec program; other software you install may adversely affect the performance of your laptop.
- ❑ Consider purchasing extended warranty coverage on your laptop. Red River College does not have facilities to assist with computer repair.
- ❑ **Other considerations include the following:**
 - How long the laptop battery will last before charging is required. (A 9-cell battery offers superior battery life.)
 - Ergonomics, e.g. weight of the laptop, keyboard layout, mouse, screen size, etc.
 - You may want a Blu-Ray, DVD. (An optical media drive is not required for the program, but you may want it for your own personal use.)
 - Integrated Bluetooth allows for data exchange with many types of devices, and creating Personal Area Networks (PANs).
 - **In the event of a laptop failure, you are expected to have an alternate solution. Failed hardware will not be an excuse for missed assignments or deadlines. It is your responsibility to perform DAILY backups to an external source.**