

## Information Technology & Management Notebook Computer Specifications

Students enrolled in Information Technology & Management (ITM) degrees after Spring 2016 are required to own a notebook computer. The standards below reflect specifications for notebook computers for use by ITM students; each category is broken down into recommended, minimum and, where applicable, optional specifications. Your system may run **any** operating system but must be able to run Microsoft Windows 10 Professional as the primary operating system or as a secondary (dual-boot) operating system or as a virtual machine using virtualization software. These are specifications you must meet if you are purchasing a notebook computer for use in our program. If you have questions about these specifications, please contact Ray Trygstad, [trygstad@iit.edu](mailto:trygstad@iit.edu) or 630.447.9009.

ITEM	RECOMMENDED	MINIMUM	OPTIONAL/OPTIMAL
<b>Processor (CPU)</b>	8 <sup>th</sup> Gen or later Intel Core i7 AMD Ryzen 5 or later	8 <sup>th</sup> Gen or later Intel Core i5 AMD A8	Intel Core i9 or 12 <sup>th</sup> Gen i7 AMD Ryzen 6000 series
<ul style="list-style-type: none"> <li>◆ You may not be able to run virtualization software adequately without VT or AMD-V technology, not found in older CPUs.</li> <li>◆ MacBooks with the Apple-designed M-1 chip must have Parallels Desktop to allow Microsoft operating systems to run.</li> </ul>			
<b>RAM Memory</b>	16GB or greater	8GB	16GB RAM is optimal to run Windows 10/11 & virtualization
◆ 16GB or more of RAM is highly desirable.			
<b>Operating System</b>	Microsoft Windows 10 Education (64 bit)	Microsoft Windows 10 Professional (64 bit)	Linux or BSD Unix version, Windows 11, Apple MacOS
<ul style="list-style-type: none"> <li>◆ Intel-based MacBooks must have BootCamp, Parallels Desktop or VMware Fusion installed allowing running of Microsoft operating systems as virtual machines. MacBooks with the Apple-designed M1 processor must have Parallels Desktop installed. M1 MacBooks can run Canonical Multipass or Universal Turing Machine (UTM) to allow Linux virtual machine installation.</li> <li>◆ Linux or Solaris notebooks must have Xen, KVM, or VMware Workstation installed allowing running of Microsoft operating systems.</li> <li>◆ Depending on your course you may also be able to run Microsoft Hyper-V on Windows 10 or 11, which is why Windows Professional or Education is required.</li> <li>◆ Microsoft and Linux software is available at no cost to all ITM students but you should purchase a system that will support Windows 10 Professional as a minimum standard. Windows 10 Education and Windows 11 Education is available free to all ITM students and is the most complete version of Windows. Windows Home versions will not support all software or OS functions you will need in our curriculum.</li> <li>◆ Ubuntu and Ubuntu variants Kubuntu, Linux Mint, and Pinguy, as well as OpenSUSE are recommended Linux distributions.</li> </ul>			
<b>Hard Drive</b>	1TB	500GB	SSD – 500GB or 1TB 7200 RPM hard drive(s)
<b>Optical drive (May be external)</b>	24-48x CD-RW/DVD-RW	24x CD-RW/DVD-R	Blu-Ray / Blu-Ray-R External drive for Surface or Air
<b>Floppy drive</b>	Neither required or expected		3.5 inch 1.44MB
<b>Graphics card</b>	1GB or greater, 24-bit color	256MB 24-bit color	
<b>Display resolution</b>	1600x1200 UXGA or greater	1280x1024 XGA	1440x900 WXGA+
<b>Wireless Network</b>	IEEE 802.11ac (Wi-Fi 5) (WPA2- Enterprise support <b>required</b> )	IEEE 802.11g/n (WPA2- Enterprise support <b>required</b> )	Integral 4G or 5g Wireless 802.11ax (Wi-Fi 6)/802.11be (Wi-Fi 7)
<b>Network Port</b>	1000Base-T (gigabit) ethernet	1000Base-T ethernet	(USB Ethernet adapter is OK)
◆ Virtually all notebook PCs sold today include a gigabit (1000Base-T) ethernet port as standard items.			
<b>Peripheral Ports</b>	2 USB-3 / 1 USB-2 or USB-C; HDMI or Display Port or USB-C video connector	1 USB-2; RGB video connector	IEEE 1394 (FireWire) 3 USB-3 / USB-3.1 / USB-3.2 eSATA
<b>Office Software</b>	LibreOffice	LibreOffice	Microsoft Office 2010 or newer
<ul style="list-style-type: none"> <li>◆ LibreOffice is available for free at <a href="http://www.libreoffice.org/">http://www.libreoffice.org/</a> or (preferred) <a href="http://www.ninite.com">http://www.ninite.com</a>.</li> <li>◆ A subscription to Microsoft 365 which includes Microsoft Office for Windows or OSX may be available to our students with an iit.edu email address at <a href="https://www.microsoft.com/en-us/education/products/office">https://www.microsoft.com/en-us/education/products/office</a>.</li> </ul>			
<b>Anti-Virus Software</b>	including all current updates		Optional on Mac/Linux
◆ Microsoft Defender, which is free from Microsoft, is recommended as a minimum. You may not operate any version of Microsoft Windows on Illinois Tech networks without installed anti-virus software.			

Convertible or “2-in-1” systems such as the Microsoft Surface, Dell Inspiron or Dell Latitude, Lenovo Thinkpad Yoga or Lenovo Yoga, Acer Aspire, or Toshiba Satellite Radius that comply with these specifications are acceptable. Students should have a flash/thumb drive for lab use; 64GB minimum is recommended. See the ITM Student Information publication or [https://blogs.iit.edu/itm\\_loopback/software/](https://blogs.iit.edu/itm_loopback/software/) for software available at no cost to ITM students.

Links to special pricing on Dell and Apple computer hardware is available to Illinois Tech students at <https://ots.iit.edu/pc-mac/student-pcs-macs>.