



## HARDWARE REQUIREMENTS

Students need to meet the minimum standards below.

The computer should be fast enough and have enough memory and disk space to provide satisfactory performance over a usable life of at least two to three years. All student computers should have the following components:

**Form Factor:** Notebook. (A netbook or tablet should not be used as the primary computing device.\*) A minimum of 2 hours of battery life is required.

**Processor:** 64 bit Multi-core processor or better.\*\*

**Memory:** 4 - 8 GB or more. For best performance, we recommend that you install as much memory as affordable at the time of purchase.

**Primary Hard Drive:** 128GB solid state drive or 250GB hard disk drive or larger.

**Backup Device or Service:** For local backup, an external hard drive with double the size of the internal hard drive or a subscription to a cloud based backup solution like Crashplan is highly recommended.

**Networking:** Wireless 802.11n capable.

**Recovery options:** It is highly recommended that all computers include a recovery partition or recovery utility that allows quick restoration of the factory image should a re-installation be necessary. If the system does not have a recovery partition, then students should have their software media with them in the event a re-installation is necessary. *If you have questions, check at the point of purchase or at the Technology Support Center.*

### **Accessories (optional):**

- An external DVD writer
- USB flash drive
- Ethernet cable
- Laptop anti-theft cable lock
- An external webcam may also be useful for some applications, as well as a USB microphone and headphones
- Dongles for connecting to an external display or projection device may also be required
- Typical connectivity to a projection system is VGA, but newer rooms have DVI and/or HDMI connections. Video adapters for notebooks, tablets or other mobile devices are not provided by the Institute.

\*Note that most netbooks and tablets (e.g. Apple iPad, Galaxy Tab and others that run on an operating system designed specifically for the device) do NOT meet the minimum hardware requirements above. While they may initially provide sufficient performance for basic tasks

such as web browsing or simple word processing, use of technical software in courses may not be possible.

\*\*The use of VLab (a Virtual Lab that provides GT students a way to access 'virtual machines' on campus and use software such as MATLAB and AutoCAD from any computer with Internet access) does not diminish these requirements. Your system will still need to independently support the required software.

**Warranty:** Extended warranties (three years, in general) are highly recommended. These warranties normally cover hardware problems as well as system troubleshooting via phone or email. (Additional accidental damage coverage should be considered, if available.) The Bell Techlogix service at Barnes & Noble @ Georgia Tech serves as a third party hardware repair center for all vendors.

**Third Party Resources:** The Barnes & Noble computer store offers in-store purchasing in addition to an online order site. Visit <http://techstuff.gatech.edu> for exclusive discount pricing for the Georgia Tech community on hardware, software and accessories. All students who have been accepted to Georgia Tech should already be assigned a GT account, which is required for access to this special pricing. To access the techstuff.gatech.edu site fully before your FASET orientation session, go to <https://www.passport.gatech.edu> to activate your GT account and to change your password. Instructions for this activation can be found at <http://faq.oit.gatech.edu/content/how-do-i-activate-my-gt-account-students>.

### *Network Connections*

Georgia Tech currently provides wireless access in nearly every building on campus, including offices, labs, classrooms, student residence halls, and most outdoor spaces.

Visit <http://www.lawn.gatech.edu> for more information and coverage maps.

All rooms in campus residence halls are wired for computer network access. Each room has as many connections as students. Housing fees cover access; there is no additional charge. To access the network, students living in campus residence halls will need a CAT-5 Ethernet cable for their computer.

### *Printing*

Although owning a printer is not required, many students purchase a printer for their own convenience. Pharos printing services utilizing Buzzcard funds is available throughout campus, and a free print allocation of \$2.20/week is provided to students for printing in the Commons at the Georgia Tech library, Clough Undergraduate Learning Commons and the Student Center.

### *CentralPS*

Printing is also available from the Central Printing Services (Central PS) which is an offsite printing service with print jobs delivered to bins in the Student Center Computer Cluster. Students are currently not charged for CentralPS printing.

Detailed information about these services can be found on the Commons Website (<http://librarycommons.gatech.edu>).

### *For-Fee printing services:*

Funds available on Buzzcards may be applied to printing (both Black & White and Color options) in all clusters. These pay-for-print capabilities are available once the weekly print allocation is expended.

## **STANDARD SOFTWARE**

Georgia Tech supports a standard software suite for both Windows and Mac OS X systems. Standard software minimizes software incompatibilities between students and faculty, helps meet educational goals, improves the effectiveness and timeliness of software support, and helps minimize support costs. The Office of Information Technology (OIT) and the Department of Housing's ResNET will actively support the standard software. Most titles will additionally be available for student use in the general-purpose computing clusters maintained by OIT ( <http://librarycommons.gatech.edu>).

Students should buy software packages at the time they are needed for use in their courses; many packages are available for free at <http://software.oit.gatech.edu>. Students should avoid downloading software that is not needed, as this can substantially affect the performance of your computer. Removal of software from expired trials is also encouraged to maximize the operating speed of your system.

We encourage professors to use standard software. If professors choose to use non-standard software, then they will be responsible for providing software support to their students. Since OIT cannot support all software, if students choose to use any non-standard software, they may be solely responsible for providing support.

Students should have a record available of the license keys for all their purchased software so that these may be re-installed in the event of a serious problem or system reinstall.

***The standard software suite for both Mac OSX and Windows 7 is as follows:***

## *Windows Systems*

### **Operating System**

Microsoft Windows 7 (32-bit or 64-bit) Home Premium or Professional.

Refer to:

<http://www.microsoft.com/windows/windows-7/compare/default.aspx>

for a Microsoft OS comparison guide.

Note: Included with new computer purchase.

### **Email**

My GaTech (can be used with any web browser)

Note: Online at <http://my.gatech.edu/>. No purchase or installation required.

### **Data Backup**

Microsoft Windows Backup

Note: Included as part of Windows 7. Requires external hard drive.

Optional: [Gatech.crashplan.com](http://Gatech.crashplan.com) – unlimited back-up and storage for a fee (currently 5 yrs/\$157 for 1 computer).

### **Security**

McAfee VirusScan & Antispyware Enterprise 8.8

Note: Free to students. Download at <http://software.oit.gatech.edu>.

The Technology Support Center currently supplies McAfee at no cost for student use. As an alternative, free scanning software is also acceptable - examples include Microsoft Security Essentials or AVG.

### **Word Processor, Spreadsheet, Presentation Software**

Microsoft Office 2010 *or* OpenOffice.org

Note: Purchase Microsoft Office at the Barnes & Noble @ Georgia Tech or other vendors. Download OpenOffice for free at <http://www.openoffice.org>.

### **Windows Live Movie-Maker**

Available at no cost through Microsoft Download Center.

## *Mac OS X Systems*

### **Operating System**

Apple Mac OS X 10.7 (Lion) or better (Snow Leopard 10.6 is still acceptable at this time.)

Note: Included with new computer purchase.

### **Email**

My GaTech (can be used with any web browser)

Note: Online at <http://my.gatech.edu/>. No purchase or installation required.

### **Data Backup**

Apple Time Machine

Note: Included with Mac OS X. Requires external hard drive.

Optional: [Gatech.crashplan.com](http://gatech.crashplan.com) – unlimited back-up and storage for a fee (currently 5 yrs/\$157 for 1 computer).

### **Security**

McAfee VirusScan 9.0

Note: Free to students. Download at <http://software.oit.gatech.edu>.

The Technology Support Center currently supplies McAfee at no cost for student use. As an alternative, free scanning software is also acceptable – an example would include Sophos.

### **Word Processor, Spreadsheet, Presentation Software**

Microsoft Office 2011 *or* OpenOffice.org

Note: Purchase Microsoft Office at Barnes & Noble @ Georgia Tech or through the links at [software.oit.gatech.edu](http://software.oit.gatech.edu). Download OpenOffice for free at <http://www.openoffice.org>.

### **Quicktime**

Macs should come with this application already loaded.

### **Windows Compatibility**

Windows compatibility software is not required campus-wide. However, some classes may require the use of specific, Windows-only applications. Students in these classes choosing to use Mac OS X systems can use Apple's Boot Camp solution to run Windows at native speed or install virtualization software (Parallels Desktop 6 or VMware Fusion 3 or Virtual Box (free)) and a fully licensed copy of Microsoft Windows 7 in order to run Windows applications.

The standard software suite indicates software versions known at the time of this printing. At the time of purchase, students should acquire the latest versions for the computer they will be using. If you purchase software from Barnes & Noble @ Georgia Tech, then you will always receive the current version. The Barnes & Noble @ Georgia Tech online store, at <http://www.techstuff.gatech.edu/>, offers exclusive discount pricing for the Georgia Tech community on software, hardware and accessories. Additional purchasing options include e-academy (<http://www.onthehub.com/>) – an online vendor offering academic discounts for essential and curriculum-based software - or other commercial sources.

## **FINANCIAL CONSIDERATIONS**

Through an appeals process, computer ownership costs and expenses may be added to the Institute's Cost of Attendance (Student Budget) for entering freshmen and undergraduate transfer students. Applicants who apply for student financial aid through the Office of Scholarships and Financial Aid (OSFA) may request to have a maximum, one-time \$1500 adjustment added to their Cost of Attendance for purposes of determining his or her eligi-

bility for student financial assistance. A receipt showing computer purchase costs will be required at the start of the first term. Procedures on how to initiate this request can be found at <http://www.finaid.gatech.edu/costs/other/>. Contact a financial aid advisor, listed at <http://www.finaid.gatech.edu/contacts>, with any questions.

## COMPUTER SUPPORT

Georgia Tech provides the following support facilities and services:

- Printing (limited)
- Internet access
- Computer accounts for electronic mail
- Centralized network storage (limited) and basic web-hosting
- Computer labs for short-term access to computers running the standard software
- Departmental clusters or labs with major-specific software (e.g., mathematical manipulation and calculation, CAD, compilers, and databases)
- Special classrooms and labs for computer-enhanced presentations

*Technology Support Center*  
[support@oit.gatech.edu](mailto:support@oit.gatech.edu)

Services provided by the Technology Support Center include account support, software troubleshooting and diagnostics. The Technology Support Center is also available to students to answer questions about hardware configurations. The Center is in the Clough Undergraduate Learning Commons, and is available for walk-in support and at 404-894-7173. User Assistants are also available in the Library computer clusters. The Technology Support Center also offers How-to Clinics each semester. See [tsc.oit.gatech.edu](http://tsc.oit.gatech.edu) for dates and times.

### *ResNET*

The Department of Housing provides full support to residents of the on-campus residence halls through the ResNET Program. ResNET utilizes Residential Technology Advisors (RTAs) who are available to provide telephone, in-office, and on-site technical support to residents. RTAs are available to assist students with such tasks as connecting to the GT wired or wireless network and installing anti-virus software.

### *Third Party Support*

During the warranty period, students who have purchased new computers will have hardware service provided by the manufacturer. Bell Techlogix (Bell Tech), a subsidiary of Bell Services, Inc provides third party service support for hardware (all brands) at Barnes & Noble @ Georgia Tech. The Service Center can repair hardware, update software, update and add hardware, diagnose problems and correct them. Computers do not have to be purchased at the bookstore to be serviced at this location.

## COMPUTER SECURITY

All members of the Georgia Tech community play a role in protecting the Institute's information assets and systems. To help facilitate this effort, we ask that you do the following:

- Complete the GT Information Security on-line tutorial located at <http://www.security.gatech.edu/> ([Security Awareness Tutorial](#) -- On Campus Access Only)
- Install anti-virus and anti-spyware software on your system and set it to update automatically (most will be configured to do this when installed). We recommend McAfee AntiVirus, which is available for free on our software download site (<http://software.oit.gatech.edu>). Many packages that come with a system are trial versions and will expire within 3 to 6 months.
- Create strong passwords and do not share them with anyone for any reason. A strong password has at least eight characters and uses a combination of numbers, upper and lower case letters, and special symbols (@#\$%^&\*). Do not use the same password for multiple purposes or websites.
- Register your devices with the GT Police at <http://www.police.gatech.edu/services/laptop/>.
- Keep software applications, operating systems, and security patches current by visiting vendor websites regularly. Microsoft Windows and Apple Macintosh users can set their computers to download Operating System patches automatically:

**Windows Users:** Enable Windows Update –  
Control Panel -> Automatic Updates -> Automatic (daily)

**Mac Users:** Enable Software Update –  
System Preferences -> Software Update -> Check for updates (weekly)

- Perform regular backups and store them in a secure location.
- Verify that websites are secure prior to entering personal information by looking to see that your web browser is pointed to an https rather than an http address. We also recommend using McAfee SiteAdvisor to check on the safety of sites. (This is available from the Software Distribution site at <http://software.oit.gatech.edu/>)
- Log off or lock your keyboard when away from your computer.
- Prevent theft of your computer: use a cable lock to secure your laptop to a table or desk if you need to step away.
- Do not use your computer to download, copy, store, or redistribute copyrighted materials for which you do not have the legal right to do so.
- Read the Georgia Tech Computer and Network Usage Policy located at <http://www.oit.gatech.edu/sites/default/files/CNUSP.pdf>

## POLICY FAQ

- Q1: How can I determine if my current system will meet Georgia Tech's hardware requirements?
- A1: Refer to the "Hardware Requirements" section of this document, the Student Computer Ownership (SCO) website (<http://www.sco.gatech.edu>), or the Technology Support Center.
- Q2: Is it better to upgrade my current computer or to buy a new one?
- A2: This choice is dictated largely by your personal budget considerations. However, it is generally better to buy a new machine if you can. This machine will be faster, will have the latest technology, and generally have a longer usable life.
- Q3: If I purchase a new computer, how should I decide on the processor speed?
- A3: The best strategy is to purchase a relatively fast machine since it would have a longer usable life and would be able to meet your educational needs for most of your time at Georgia Tech. A good compromise between speed and cost is a processor one or two speeds slower than the fastest. A computer at the low-end of the speed scale will adequately run the standard software but provides no room for expansion. A number of good choices exist in the \$1,000 to \$2,000 price range.
- Q4: What should I do if I have a problem with the network connection in my residence hall room?
- A4: All rooms in Georgia Tech residence halls have the necessary network connections for your computer. These connections are fully supported by ResNET. If you have any problems, you should first call the ResNET office. Contact information is listed at the end of this document.
- Q5: If I do not own a printer, how will I print my documents?
- A5: A moderate weekly quota is provided to students for color or black and white printing in any OIT Computer Cluster, and students may use money on their BuzzCard for pay-for-print if they ever need to exceed this quota. For larger printing needs, students may print to a free central printing service. See <http://www.oit.gatech.edu/service/computer-labs/printing> for more details. Additionally, some departments/schools provide their students with additional free print allocation on a weekly, monthly, or semester basis.
- Q6: If printers are optional, is it worth it for me to buy my own?
- A6: While limited printing facilities are available across campus, it is certainly more convenient to have your own printer. Printing with your GT weekly allocation in the clusters is limited; however, pay-for-print pricing is inexpensive (\$0.04/B&W page and \$0.20/Color page at the time of publishing). The central printing service is free, but the documents are printed offsite and delivered to a central campus location, so students must plan ahead in order to take advantage of the service.

- Q7: I already have some of the standard software. May I purchase only certain packages from Barnes & Noble @ Georgia Tech?
- A7: Yes, you may purchase any package separately from Barnes & Noble @ Georgia Tech. Call or e-mail them for specific software prices. Be aware, however, that the Small Business Edition of Microsoft Office, which ships with many computers, does not include PowerPoint, a fundamental component of MS Office that may be required for some courses.
- Q8: How can I obtain software from Georgia Tech?
- A8: Georgia Tech has site licenses for several software packages for use on your computer. The software can be downloaded at no cost from a GT server. See <http://software.oit.gatech.edu/> for details.
- Q9: I don't want to use one of the components of the standard software suite. Can I use something else?
- A9: Standard software minimizes software conflicts and increases the quality of software support. If you decide to use something other than the standard software, then it is your responsibility to purchase, maintain, and support the software. It will be your responsibility to eliminate any software conflicts with the standard software as you start to share documents with your fellow students and submit homework assignments to your professors.
- Q10: Can I create PDF files without Adobe Acrobat?
- A10: If you have a Mac, this functionality is built into OS X and no other software is required. For PC users, Windows has several free add-ins to save to PDF and XPS formats, and Office 2010 allows users to save documents as PDFs. OIT will support your use of Adobe Acrobat. However, there are other ways to create PDFs using freely available software or adware, such as Ghostscript and GhostView from <http://www.cs.wisc.edu/~ghost/>, or the pdf995 print driver for Windows at <http://www.freeware995.com/bin/pdf995.exe>.
- Q11: Can I use Linux and open source software?
- A11: Yes, however, OIT does not provide support for software in these arenas, and you will be responsible for ensuring that this software is fully compatible with the standard software, as described in Answer 9 above.
- Q12: What can I do if I want to continue to run an older OS?
- A12: Do not continue using old operating systems. These older systems are no longer supported by their vendors and are insecure when connected to the Internet. OIT supports only the software listed in this document.
- Q13: Is there somewhere on campus that will service computers?
- A13: You can contact the Technology Support Center for assistance and recommendations for computer repair. Located in the Clough Commons, the Technology Support Center can provide you with a number of local vendors if your computer is no longer covered under warranty, including Bell Techlogix, a third-party repair vendor at Barnes & Noble @ Georgia Tech.

Q14: Where can I find more information about using the Georgia Tech network and computer systems?

A14: The following web pages contain detailed information and links to other useful pages: <http://www.security.gatech.edu>, <http://www.resnet.gatech.edu/>, and <http://www.sco.gatech.edu>.

Q15: What can I install to prevent virus or malware from my computer?

A15: Georgia Tech has a site license for McAfee AntiVirus, available via the software distribution page, <http://software.oit.gatech.edu>.

Q16: Should I purchase a USB flash drive?

A16: Yes. These devices are a great option for removable storage. However, they can be easy to lose, so give great care to the type of information you store on these devices. Warning: These devices can transfer viruses from one machine to another, so it is important to use software such as McAfee AntiVirus which will automatically scan these devices.

Q17: How can I protect my laptop from theft?

A17: Always lock your laptop to something sturdy using a cable lock. In addition, there are products available for tracking stolen laptops. Laptops should also be registered with the Georgia Tech Police Department (see: <http://www.police.gatech.edu/services/laptop/>) to aid recovery when lost or stolen. Additionally, it is advisable to set a log-in password for each operating system on your computer to prevent exploitation of your information if the laptop is stolen.

Q18: Are there any advantages to purchasing either a Mac or a PC?

A18: Generally the selection of a Macintosh or PC notebook is an individual one. However, some departments may have specific recommendations. Contact your academic advisor for information to determine specific requirements and recommendations.

Q19: What are the guidelines for using my computer for gaming, business or other alternative functions?

A19: All activities must be legal and not damage the GT network. See the Georgia Institute of Technology Computer & Network Usage and Security Policy – Effective Date July 1, 2005/revised February 2, 2011 ([http://www.oit.gatech.edu/sites/default/files/CNUSP\\_new.pdf](http://www.oit.gatech.edu/sites/default/files/CNUSP_new.pdf)). If you have questions on a specific use, contact the Technology Support Center.

Q20: Is there an alternative to purchasing a new machine every 2 – 3 years?

A20: Upgrading your RAM to the current standards may be sufficient. Contact the Technology Support Center of the Office of Information Technology for further information.

Q21: What kind of system recovery options should I have if my machine does not have a recovery partition?

A21: You will need to have all your media available in case you need to erase & reload your

operating system, if you do not have a recovery partition.

Q22: How do I make certain my software is up to date?

A22: Secunia, for Windows, will check to see if your software is up to date.

This is a free utility.

For a Mac OS, APPfresh from Metaquark will perform the same function.

## IMPORTANT CONTACT NUMBERS AND ADDRESSES

### *More information:*

Georgia Tech Student Computer Ownership Initiative

- Website ..... <http://www.sco.gatech.edu>

### *Technical/connectivity/compatibility questions:*

#### Technology Support Center

- Telephone ..... 404-894-7173
- E-mail ..... [support@oit.gatech.edu](mailto:support@oit.gatech.edu)
- Website ..... [tsc.oit.gatech.edu](http://tsc.oit.gatech.edu)
- Walk-in support ..... Technology Support Center (in Clough Commons)

#### ResNET (Department of Housing)

- Telephone ..... 404-894-0044
- E-mail ..... [support@resnet.gatech.edu](mailto:support@resnet.gatech.edu)
- Website ..... <http://www.resnet.gatech.edu>

### *General pricing/availability/ordering:*

Barnes & Noble @ Georgia Tech

- Telephone ..... 404-894-2377
- Fax ..... 404-894-2530
- E-mail ..... [Tech.Center@bks.gatech.edu](mailto:Tech.Center@bks.gatech.edu)
- Website ..... <http://www.techstuff.gatech.edu>

### *Financial aid/alternative loans:*

Georgia Tech Office of Scholarships and Financial Aid

- Telephone ..... 404-894-4160
- E-mail ..... [finaid@gatech.edu](mailto:finaid@gatech.edu)
- Website ..... <http://www.finaid.gatech.edu>

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