

# UNDERGRADUATE STUDENT COMPUTER OWNERSHIP GUIDE

http://www.sco.gatech.edu

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### MINIMUM REQUIREMENTS

#### **PURCHASING HARDWARE**

Whether you choose to purchase a new laptop or you already own one, make sure it satisfies as many of the components listed in the "Minimum Requirements" section below as possible. Ideally, a new laptop that meets the specifications in this document will continue to serve your needs for the next four years. If you are entering with a used computer, you may need to upgrade it before you graduate, depending upon its specifications and your needs.

Detailed information on purchasing a laptop, see <a href="http://techstuff.gatech.edu">http://techstuff.gatech.edu</a>. To access all features of the online site before your FASET orientation session, go to <a href="passport.gatech.edu">passport.gatech.edu</a> to activate your GT account and set up your password.

#### HARDWARE REQUIREMENTS

Hardware needs to meet at least the minimum standards summarized in the table below. Students should also check with their school or department to determine if there are additional requirements for their course of study.

#### **Minimum Requirements**

Processor	64-bit multi-core processor (quad-core or higher recommended)
Memory	16GB (higher recommended)
Primary Storage	256GB SSD (higher recommended)
Backup	External hard drive or cloud service, <u>see here</u> .
Networking	Dual-Band (2.4GHz/5GHz) Wireless 802.11ac
I/O devices	Physical keyboard and mouse/trackpad

Accessories	(Required) Webcam and microphone (built-in or external).
	(Highly Recommended) Headset with a microphone for clear communication while on video conference sessions

# **Additional Recommendations**

Form Factor	Laptop* with a minimum of 4 hours of battery life is required.
Recovery option	It is highly recommended that all computers include a recovery partition or recovery utility that allows quick restoration of the factory image, should a reinstallation be necessary. If the system does not have a recovery partition, then students should have their software media with them in the event a reinstallation is necessary. If you have questions, check at the point of purchase or at the Enterprise Service Desk.
Extended 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.
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. Further information and connection instructions can be found at lawn.gatech.edu. In addition, rooms in campus residence halls offer dedicated tech support via wrecktechs.gatech.edu.
Printing	Although owning a printer is not required, many students purchase a printer for their own convenience. The printer should be connected using a USB. See printing services for more information.

Optional Accessories	Physical keyboard and mouse/trackpad, USB-C dongles, external monitor,
	Ethernet cable, laptop anti-theft cable lock, and HDMI dongle.

- \* A tablets that meets all the hardware requirements and can run full desktop operating systems is acceptable.
- \*\* The use of Virtual Lab (VLab) does not diminish these requirements. Your system will still need to independently support the required software. Virtual Lab (VLab) 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.

See <a href="http://mycloud.gatech.edu/">http://mycloud.gatech.edu/</a> for the Citrix Access Gateway to VLab.

#### **UNIT SPECIFIC RECOMMENDATIONS**

Individual departments, schools, and online courses may have specific computing requirements beyond the standard recommendations outlined here. Please consult with the respective unit to ensure compatibility with any specifications that are outside of the recommended minimums.

#### STANDARD SOFTWARE

Georgia Tech supports a standard software suite for both Windows and macOS systems to minimizes software incompatibilities between users, help meet educational goals, improve the effectiveness and timeliness of software support, and help minimize support costs. The Enterprise Service Desk and Wreck Techs will actively support the standard software. The Technology Store at Barnes & Noble does not provide software support. Most standard software will additionally be available for student use in the general-purpose computing clusters maintained by OIT.

Students should install software packages at the time they are needed for use in their courses; many packages are available for free at <u>software.oit.gatech.edu</u>, or through vendors offering academic discounts, such as Kivuto's OnTheHub (<u>onthehub.com</u>). Be aware that downloading and installing additional software can substantially affect the performance of your computer.

Removal of software from expired trials is encouraged to maximize the operating speed of your system.

Students who choose to use non-standard software may be solely responsible for maintaining it. Students should keep a record of license keys for purchased software in case of serious problems or system reinstalls.

The standard software suite for Windows and macOS is as follows:

# **Windows Systems**

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Operating System	Microsoft Windows 10 or 11 (64-bit)
	NOTE: Included with new computer purchase.
Email	Office 365 Exchange (can be used with most web browsers and email clients)
	<b>NOTE:</b> Accessible online at <u>mail.gatech.edu</u> , no purchase or installation required. Student's GT Email will be created about one month before the semester starts. See <u>additional instructions</u> on configuring mail clients.
Data Backup	Windows Backup
	<b>NOTE:</b> Included as part of Windows 10 and newer versions. Requires external hard drive or OneDrive cloud storage. OneDrive can be accessed through office365.gatech.edu.
	<b>Optional:</b> Dropbox or Box are alternative options (see <u>this link</u> for more information)
	Visit <u>this document</u> for good advice on Data Backup.
Security	Georgia Tech expects each machine to have security software installed, whether it's a part of the Operating System or a 3rd party software. For more information about this requirement, please:  • Read the Georgia Tech Acceptable Use Policy
	<ul> <li>Familiarize yourself with the Georgia Tech Cyber Security website located at: <a href="mailto:security.gatech.edu">security.gatech.edu</a>.</li> <li>Additional information can be found in <a href="mailto:Computer Security">Computer Security</a> or by emailing <a href="mailto:ask@security.gatech.edu">ask@security.gatech.edu</a>.</li> </ul>
Word Processor, Spreadsheet, Presentation Software:	Microsoft Office 365

	Georgia Tech students can download Office 365 for free by following these <u>instructions</u> . <u>LibreOffice</u> is a free Open Source office suite alternative.
Online Storage	As part of the Office 365 Pro Plus package, students will have access to OneDrive for Business for file syncing and storage.

# macOS Systems

Operating System	Apple macOS Monterey (12), Ventura (13), or later.
	<b>NOTE:</b> Included with new computer purchase.
Email	Office 365 Exchange (can be used with most web browsers and email clients)
	<b>NOTE:</b> Accessible online at <u>mail.gatech.edu</u> , no purchase or installation required. Student's GT Email will be created about one month before the semester starts.
Data Backup	Apple Time Machine
	<b>NOTE:</b> Included with macOS. Requires external hard drive.
	Optional: OneDrive, Dropbox, or Box cloud storage are other options. For more information, see <u>this document</u> .
Security	Georgia Tech expects each machine to have security software installed, whether it's a part of the Operating System or a 3rd party software. For more information about this requirement, please:
	<ul> <li>Read the <u>Georgia Tech Acceptable Use Policy</u></li> <li>Familiarize yourself with the Georgia Tech Cyber Security website located at: <u>security.gatech.edu</u>.</li> <li>Additional information can be found in <u>Computer Security</u> or by emailing <u>ask@security.gatech.edu</u>.</li> </ul>

Word Processor, Spreadsheet, Presentation Software	Microsoft Office 365 Pro Plus, LibreOffice, or iWork Suite (free download for Macs)
	Georgia Tech students can download Office 365 ProPlus for free by following these <u>instructions</u> .
	<u>LibreOffice</u> is a free Open Source office suite alternative.
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 macOS systems should Install virtualization software, such as Parallels Desktop (paid) or VMware Fusion (free), and a fully licensed copy of Microsoft Windows 11 (or newer) in order to run Windows applications. Keep in mind that virtual machines take away from your total available RAM; this is why we recommend 16GB. Have enough space for a Windows installation of at least 64GB.

#### **Linux Operating Systems**

Some schools might need to use Linux software that can be accomplished by virtual machines. Students should confirm with School or Department to determine the most supportable version to prevent support issues during the semester. Please know that the Administrative Service Center provides "limited/best effort" support for Linux distributions.

#### FINANCIAL CONSIDERATIONS

Through an appeals process, computer ownership costs and expenses may be added to the Institute's Cost of Attendance (Student Budget; <a href="http://finaid.gatech.edu/cost-adjustments">http://finaid.gatech.edu/cost-adjustments</a>) for entering first-year 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 one-time adjustment up to a maximum of \$1,100 added to their Cost of Attendance for purposes of determining his or her eligibility 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 <a href="https://www.finaid.gatech.edu/costs">www.finaid.gatech.edu/costs</a>. Contact a financial aid advisor, listed at <a href="https://www.finaid.gatech.edu/contacts">www.finaid.gatech.edu/contacts</a>, with any questions.

You can also purchase an affordable laptop fulfilling SCO requirements from <a href="https://www.lenovo.com/georgiatech">www.lenovo.com/georgiatech</a>. Another option you have is to apply for the <a href="https://www.lenovo.com/georgiatech">Dean Griffin Hip</a>
<a href="https://www.lenovo.com/georgiatech">Pocket Fund</a> for an immediate \$1000 no interest loan to help you purchase a laptop.

## **COMPUTER SUPPORT**

Georgia Tech provides the following support facilities and services:

- Printing (limited)
- Internet access
- Email
- 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

Administrative Services Center Technology Support Services provided by the ASC Technology Support include but are not limited to: GTAccount, email and Wireless Network support. ASC Technology Support is also available to students to offer consultation about computer hardware configurations. The ASC is in Room 215 of the Clough Undergraduate Learning Commons and is available for walk-in support and at 404-385-1111. See <a href="https://services.gatech.edu">https://services.gatech.edu</a> for a complete listing of services and hours of operation.

#### **WRECK TECHS**

Wreck Techs provides full support to residents of the on-campus residence halls. Wreck Techs utilizes student technicians as Residential Technology Advisors (RTAs) who are available to provide telephone, online chat, 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, installing anti-virus software, and assisting with connecting gaming/personal entertainment devices to the Georgia Tech network.

Wreck Techs is the only service on campus that provides After Hours Support (see <a href="http://wrecktechs.gatech.edu">http://wrecktechs.gatech.edu</a> for hours of operation and locations) and in-room repairs. All residence hall wireless access points and wired network connections are maintained, supported, and repaired by Wreck Techs.

#### **ACADEMIC TECHNOLOGY RESOURCES FOR STUDENTS**

<u>This website</u> provides information about academic technology resources that are available to students, as well as how students can get assistance when they need support on using these resources.

#### **Equipment Lending**

The Library has laptops, tablets, cameras, A/V equipment and more available for checkout for periods from 4 hours to 2 days, depending on the item. Equipment is available either from the Library's <u>INFODesk</u> on the Grove level (ground floor) in Price Gilbert. For a complete list of items available for instant checkout, and items that require an advance reservation, visit the Library's <u>Gadgets page</u>.

If you are experiencing financial or technical difficulties, students may borrow a laptop from the OIT laptop loaner program as a temporary solution at <u>b.gatech.edu/laptop-loaner</u>.

#### **Printing at Tech**

# Clough Commons/Library/Housing:

High speed laser printing for students is also available throughout the campus. For more information, please visit: <u>oit.gatech.edu/printing-services</u>

#### Large Format Printing:

Large format printing including poster printing is available at various locations on campus, including the Library's Print Studio located on the 3rd floor of Price Gilbert, part of the Media Scholarship Commons. Print jobs are priced by the square foot and plotters are capable of printing in 24-inch, 36-inch and 42-inch widths of any length. For more information about this service, please visit: <a href="https://library.gatech.edu/media-scholarship-commons">https://library.gatech.edu/media-scholarship-commons</a>.

#### **Third Party Support**

All computer repair and upgrade services for Apple, Dell, Lenovo, and HP are referred to outside Support Vendor Repair. Please note that there is no affiliation whatsoever to OIT with these service locations and users can choose to seek computer repair from anywhere else not referred. Hardware repairs on all brands of computers, regardless of where they were purchased or current warranty status, can be facilitated at preferred locations.

#### **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:

- Read the Georgia Tech Acceptable Use Policy
- Review <u>Endpoint Computing Best Practices</u>
- Create strong passwords and do not share them with anyone for any reason. A strong password has at least eleven 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, your first and last names, or the @ symbol in your password.
- Register your devices with the GT Police
- GT Police also offers free laptop engraving of your Georgia Tech ID number on your laptop. Email <a href="mailto:crimetips@police.gatech.edu">crimetips@police.gatech.edu</a> to request an appointment.
- 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:
  - o **Windows Users:** Enable Windows Update:
    - Start -> Windows Settings -> Update Security -> Windows Update
  - o **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.
- Log off or lock your session 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.
- If you anticipate being involved in undergraduate research, or working at GTRI, make your laptop supports full disk encryption, which may be needed for certain projects. In particular, Windows Home edition (including Windows 10 Home) doesn't support Bitlocker and therefore whole disk encryption, so Windows Pro, Enterprise, and Education editions of Windows 10 are recommended.

#### **Two-factor Authentication**

Georgia Tech considers the security and privacy of student and employee information to be of utmost importance. To keep our information safe, the Institute requires the use two-factor authentication when accessing campus services and systems to strengthen the protection of student and employee data and maintain compliance with University System Information Security policy. For information on installation, visit <a href="http://twofactor.oit.gatech.edu/students">http://twofactor.oit.gatech.edu/students</a>. If you do not have a mobile phone, your phone is lost or stolen, or you simply wish to purchase a backup two-factor access device, you can purchase a blue DUO token (and have it setup for your GT account) at the BuzzCard <a href="https://center.see">Center</a>. See <a href="this link">this link</a> for more information and the cost.

#### **Campus Virtual Private Network (VPN)**

Many campus digital services are accessible only through the campus network. However, this does not mean one must be physically present on campus to connect to the GT network. Connecting to the campus VPN allows for remote connections to the campus network. For more information, see <a href="mailto:this.">this link</a>.

#### **IMPORTANT CONTACTS**

#### More information

Georgia Tech Student Computer Ownership

Website: www.sco.gatech.edu

Student input on minimum hardware and software requirements: https://bit.ly/GTSCOsurvey

#### Technical/connectivity/compatibility questions

Enterprise Service Desk/Wreck Techs
Telephone: 404-385-5555

Website: <u>services.gatech.edu</u>

Walk-in support: Enterprise Service Desk (Clough Suite 215, behind Kaldi's Coffee)

Howell Village (East Campus; 1st-floor of Howell Residence Hall)

West Village (West Campus; next to Panera, across from Village Bakery)

#### **Two-factor Authentication Using Duo**

Website: <u>twofactor.oit.gatech.edu</u>

# General pricing/availability/ordering

Technology Store @ Georgia Tech (Barnes & Noble @ Georgia Tech)

Telephone: 404-894-2377 Fax: 404-894-2530

Email: <u>techstore@gatech.edu</u>
Website: <u>techstuff.gatech.edu</u>

# Financial aid/alternative loans

Georgia Tech Office of Scholarships and Financial Aid

Telephone: 404-894-4160

Email: <u>finaid@gatech.edu</u>

Website: <u>www.finaid.gatech.edu</u>