

STUDENT COMPUTER OWNERSHIP INITIATIVE

INTRODUCTION

Georgia Tech students, graduates, faculty, and researchers have long been recognized for their innovative problem solving. Faculty members are known for their creative teaching methods, including project-based education, which teach students teamwork and group problem-solving skills and provide students with transferable skills that will be used throughout their careers. In 1995, believing that the time had come for the “next step” in creative learning and academic success in an increasingly technologically-based society, President G. Wayne Clough appointed a Student Computer Ownership Committee, composed of students, faculty, and staff, to study the issue of required computer ownership by all students. After careful study and extensive deliberations by the committee, a student computer ownership policy was recommended by the Georgia Tech faculty and approved by the University System of Georgia Board of Regents. This policy requires all students joining the class of 2001 and all subsequent classes to own a computer.

This document describes several elements of the Georgia Tech policy on Student Computer Ownership (SCO) as well as computer ownership financial aid information. Another mailing to be sent in early April to students starting in the Fall semester will contain more detailed information on purchasing a computer from the Technology Center @ The Georgia Tech Bookstore, should you choose to do so. Complete information can be found on the Georgia Tech SCO website at <http://www.sco.gatech.edu>.

STANDARD SOFTWARE

A major part of the Student Computer Ownership Initiative was the establishment of a standard suite of software to meet the communication, productivity, and educational needs of the student. Standard software minimizes software incompatibilities between students and faculty, helps meet educational goals, improves the effectiveness and timeliness of software support, and helps to minimize support costs. The standard software suite is as follows:

Type	Vendor	Software Title
Operating System	Microsoft	Windows XP Pro
	Apple	Mac OS 10.3, or higher
Communications	Qualcomm*	Eudora Pro 6.2.1 (Win/Mac)
	Van Dyke Software*	SecureCRT 4.1.10 (PC)
	McAfee*	Virus Scan Enterprise 8.0i
	ISS*	RealSecure Desktop
Productivity & Education	Microsoft	Office 2000 or later Std (Win), or Office 2001 or higher (Mac)
	Adobe	Acrobat 7 StandardVersion (Win); Mac OS X includes this functionality
	Macromedia	Dreamweaver MX 2004
	Waterloo Maple	Maple 9.5
	Mathworks	Matlab 7.01 (Release 14sp1 for Win/Mac)

*Applications downloadable from the web or a GT server at no cost to students. See <http://software.oit.gatech.edu> for further details.

The Student Computer Ownership Committee has carefully chosen the components of this software suite. Functionality and price were key factors in making these decisions. The standard software will be actively supported by Georgia Tech's Office of Information Technology (OIT). In addition, most titles will be available for student use in the general-purpose computing clusters maintained by OIT.

Software costs to the student should be minimized by the use of this standard software suite. Professors are strongly encouraged to use standard software in their courses. If a professor chooses to use non-standard software, he/she will be solely responsible for providing software support to their students since OIT **will only support** the standard software. Furthermore, if a student chooses to use any non-standard software, he/she will be solely responsible for providing support. No software can be added or removed from this suite without the specific approval of the Student Computer Ownership Committee and the Vice Provost for Undergraduate Affairs.

PURCHASING STANDARD SOFTWARE

The operating system software is preinstalled in new computer systems. If you need to upgrade, either operating system can be purchased at the Technology Center @ The Georgia Tech Bookstore or elsewhere.

The communications/utilities software is available to all Georgia Tech students under campus-wide licenses. You should obtain this software soon after your arrival on campus since it will be used immediately in your classes. You may download the software free of charge from a GT server (for details, see the SCO website <http://www.sco.gatech.edu>).

The productivity and educational software can be purchased individually from the Technology Center @ The Georgia Tech Bookstore. Students should buy software packages at the time they are needed for use in their courses. However, students should purchase or already have Microsoft Office when they arrive on campus since this software will be used immediately in their classes.

The standard software list indicates the most current version of the software at the time of this printing. At the time of purchase, students should acquire the latest versions for the computer (Windows or Macintosh) they will be using. If the software is purchased from the Technology Center @ The Georgia Tech Bookstore, you *will* receive the most current version at the time of your purchase.

Note: While the standard software may be purchased from any vendor, the prices at the Technology Center @ The Georgia Tech Bookstore are particularly attractive because of large educational discounts. It is recommended that students starting in the Fall semester wait until the Technology Center @ The Georgia Tech Bookstore computer purchase information is sent in early April before making any purchase decisions.

HARDWARE REQUIREMENTS

A student's computer should effectively run the standard software suite described above. The computer should be fast enough and have enough memory and disk space to provide satisfactory performance over a usable life of two to three years. All student computers should have the following components (see the information on currently owned hardware under the Purchasing Hardware section, to see if you reach a minimum with your existing system).

Desktop configurations

Processor: At least Pentium IV class or at least a Power Macintosh G4 processor

Memory: At least 512 MB

Hard Drive: 40 GB or larger

Monitor: 15 inch or larger

Accessories: CDR

Sound card (standard on Macintosh and some Windows models)

Speakers

10/100 Base-T Ethernet card or modem

Laptop configurations

Some students may choose to bring laptop computers to campus. Following is a list of "Pros" and "Cons" for students to think about prior to purchasing and bringing portable computers for academic use.

Pros

- Wireless access availability in library and numerous other campus locations (see below for information on wireless access)
- Ability to use with team projects
- Convenient to use when discussing projects with professors during office hours
- Easy to take home over breaks/holidays
- Increased mobility

Cons

- Potential for theft
- More expensive than desktop computers
- Insurance coverage responsibility of parent/student

Processor: At least Pentium M class or at least a Power Macintosh G4 processor

Memory: At least 512 MB

Hard Drive: 40 GB or larger

Monitor: Supports XGA (1024 x 768) resolution or better

Accessories: CDR

Sound card (standard on Macintosh and some Windows models)

Network capability (see below)

Network Connections

All rooms in campus residence halls are wired for computer network access. Each room has as many connections as beds. Housing fees cover access and basic usage charges. There is no additional charge. To access the network, students *living in campus residence halls* will need a 10/100 Base-T (twisted pair) ethernet card and a 25' CAT-5 Ethernet cable for their computer. (A 10/100 Base-T ethernet card is standard on Macintosh and some Windows models.) If your computer *does not* have a standard 10/100 Base-T ethernet card, you will need to purchase an ethernet card. The Technology Center @ The Georgia Tech Bookstore carries several different network interface cards that work well on the GT network. Call the Technology Center @ The Georgia Tech Bookstore for specific model and price information.

Students *not living in campus residence halls* will need to purchase a 56K modem (a 10/100 Base-T ethernet card *is not* required) if you plan to connect via dial up. If you plan to have cable modem or DSL access, acquire an ethernet card as recommended by your service provider.

Wireless Access

Georgia Tech currently provides wireless access at many campus locations. Visit www.lawn.gatech.edu for more information and coverage maps.

Printers

There are limited printing facilities available to students in the public computing clusters located on campus and in the campus central computing facility. Although owning a printer is not required, many students purchase a printer for their own convenience. In

the Library Commons, for example, printing is limited to 800 pages per semester. Students should be aware that the campus is investigating a pay-for-print solution that will limit 'free' printing.

PURCHASING HARDWARE

If you want to purchase a new computer, you should try to take advantage of the constantly falling prices of computer equipment. Delay your purchase as long as possible, but make sure that you have your computer before classes begin. If you purchase a computer after your arrival on campus, delivery delays may prevent you from having the machine for a month or more. You should also be aware that there is a difference between network-ready computers and computers intended for home use. If you will be living in a campus residence hall, make sure the computer you buy is network-ready. As a rough guideline, we are confident that there are desktop (and laptop) computers available for under \$1500 that will be suitable for your computing needs.

When you purchase a new computer, make sure that it has all of the components listed in the "Hardware Requirements" section above. While the fastest processor available will provide great performance, it comes at a cost premium. A good compromise between speed and cost is a processor one or two speeds slower than the fastest. It is not recommended that you purchase a new computer with a processor that is significantly less powerful than the current generation. The standard software suite at Georgia Tech will evolve during your time as a student, and at some point, a machine with a slow processor may not be able to run this software effectively. When this happens, you will need to upgrade or buy another computer. It is likely to be more cost effective to purchase a more powerful machine now than to upgrade later. In addition, it is not recommended that you purchase the low-end system from any manufacturer, because some computers are not network-ready, and even after being upgraded do not work well on the GT network. Please feel free to check with Tech's computer store or The Office of Information Technology if you are not comfortable with any of these directions.

If you *currently own a computer*, you should make sure that it has all of the components listed in the "Hardware Requirements" section above. If your computer does not meet these specifications, we cannot ensure that you will be able to utilize the SCO software packages; therefore, you should seriously consider an upgrade or the purchase of a new computer.

General information on purchasing a computer will be available on the SCO website (<http://www.sco.gatech.edu>). More specific information on purchasing a computer from the Technology Center @ The Georgia Tech Bookstore will be sent in early April for students starting in the Fall semester. This mailing will be sent to all accepted students who have chosen to attend Georgia Tech (i.e., those students who have paid their admission deposit).

<p>Note: While your computer may be purchased from any vendor, be aware that the Technology Center @ The Georgia Tech Bookstore carries a full line of computer hardware and peripherals at very competitive prices. It is recommended that students starting in the Fall semester wait until the Technology Center @ The Georgia Tech</p>

Bookstore computer purchase information is sent to you in early April before making any purchase decisions.

COMPUTER SUPPORT

Georgia Tech will actively support student computers and the standard software.

Residential Technology Advisors (RTAs) are knowledgeable students who are available to provide telephone and on-site technical support to residents on *networking questions*. RTAs assist students in connecting their computers to the GT network.

Georgia Tech's Office of Information Technology (OIT) Customer Support Center is available to students to answer questions about *hardware configurations and software applications*. User Assistants are also available in the computing clusters on campus.

During the warranty period, students who have purchased new computers will have hardware service provided by the manufacturer.

In addition to the above hardware and software support, Georgia Tech will provide the following support facilities and services:

- Printing (limited)
- Internet access
- Computer accounts for electronic mail
- Clusters 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 database)
- Special classrooms and labs for computer-enhanced presentations

COMPUTER SECURITY

As a member of the Georgia Tech community, we all 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 Computer and Network Usage Policy located at <http://www.security.gatech.edu/policy/usage>
- Do not use your computer to download, copy, or store or redistribute copyrighted materials.
- Complete the GT Information Security on-line tutorial located at <http://www.security.gatech.edu/information/safe/>
- Install a virus protection and personal firewall application on your system and update it often. See www.sco.gatech.edu.
- Create strong passwords and do not share them with anyone for any reason. A strong password has at least eight characters, uses a combination of numbers, upper and lower case letters, and uses at least one special character (@#\$%^&*).
- Keep software applications, operating systems and security patches current by visiting vendor websites regularly.
- Perform regular backups and store in a secure location.
- Verify that websites are secure prior to entering personal information.
- Do not give your social security number to anyone—use your gtID instead.
- Log off or lock your keyboard when away from your computer.

Call OIT's Customer Support Center, 404-894-7173, if you need assistance with any of the above.

FINANCIAL CONSIDERATIONS

Computer ownership costs and expenses are a component in the Institute's Cost of Attendance (Student Budget) for entering freshmen and undergraduate transfer students. Applicants that apply for student financial aid through the Office of Student Financial Planning & Services (OSFP&S) will automatically have \$1500 added to the other direct and non-direct educational expenses that comprise the student's budget. The family contribution for education (as determined by the results of the federal application for financial aid) will then be subtracted from the student budget to determine a student's need. Thus, the cost of a computer is being considered when financial aid awards are made. Financial aid awards are offered from many sources for eligible students and Parent PLUS loans are available for eligible parents.

NOTE: As a public institution Georgia Tech is not in a position to fully fund all of its financially needy students. As set forth in both Admission and Financial Aid publications, "Georgia Tech offers a variety of financial aid programs to assist students in meeting normal college expenses; however, the amount of aid granted seldom meets all educational expenses."

OTHER FINANCING OPTIONS

Alternative loans for educational expenses are also available. CitiAssist from Citibank is the most often selected alternative loan source for students at Georgia Tech. CitiAssist loans are made to eligible students with credit-worthy co-signers. The interest rate for Georgia Tech students is prime plus 0%.

Please visit the OSFP&S web site:

<http://www.finaid.gatech.edu> for application procedures and other important information.

Personal loans are available from your "home" bank or through local banks, such as Bank of America. Apple Computer, Inc. also offers loans for the purchase of their computers. Contact telephone numbers are listed at the end of this document.

POLICY QUESTIONS & ANSWERS

Q1: How can I find out if my current system will meet Georgia Tech's hardware requirements?

A1: Refer to the "Hardware Requirements" section of this document, the SCO website, or the OIT Customer Support Center for current hardware requirements. If your computer does not meet these specifications, you should seriously consider an upgrade or the purchase of a new computer. However, if you want to continue to use your current system, it might be possible if your processor is Pentium III class (500 MHz or faster) and you have at least 256 MB of memory and a 20 GB hard drive. If your current system is a Mac running OS X, it should also be possible if the machine has 256 MB of memory and a 20 GB hard drive.

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 just adequately run the standard software and provide no room for expansion. Since the price of computers keeps coming down, a number of good choices exist in the \$1,000 to \$2,000 price range. Beyond this price range lie the high-end machines, with multiple processors, high-speed graphics capability, and other such technology. The gain in performance offered by such machines comes at a substantial premium in price, and such an investment is not necessary for most students. If, at some point in the future, a student develops a need for such power, it will probably be much more economical to buy it then.

Q4: What do I need to connect to the Georgia Tech network or to get on the World Wide Web?

A4: If you are *living in a campus residence hall*, you will need a 10/100 Base-T ethernet card and a 25' CAT-5 Ethernet cable for your computer. If you do not have a standard 10/100 Base-T ethernet card on your computer, you will need to purchase a 10/100 Base-T ethernet interface card. The Technology Center @ The Georgia Tech Bookstore sells supported network interface cards that work well on the GT network. Call the Technology Center @ The Georgia Tech Bookstore for details. If you are *not living in a campus residence hall*, you will need a 56K modem and an internet access account. See the SCO website for details (<http://www.sco.gatech.edu>).

Q5: What if I already have a network interface card or if I purchase a network interface card that is not one of the brands recommended by the Technology Center @ The Georgia Tech Bookstore?

A5: We recognize that many network interface cards might work on the Georgia Tech network. However, given the large number and the sheer variety of network interface cards that are available, it is difficult to provide a quality-level of support for all cards. If you have one of the recommended brands of network interface cards, you are *guaranteed unlimited support*. If you have any other brand, the Housing RTAs will provide assistance for thirty minutes. If the RTA is not able to get you connected to the GT network within this time period, you will need to contact the computer manufacturer and/or the network interface card manufacturer for further assistance.

Q6: Should I purchase a modem?

A6: You might need a modem if you do not live in a campus residence hall, or if you take your machine home or to a co-op assignment where broadband internet service is not available. See Question 4.

Q7: What should I do if I have a problem with the network connection in my residence hall room?

A7: All rooms in Georgia Tech residence halls have the necessary network connections for your computer. These connections are fully supported by ResNet and OIT. If you have any problems, you should first call the ResNet office. Contact information is listed at the end of this document.

Q8: If I don't own a printer, how will I print my documents?

A8: Limited printing facilities are available at several public computing clusters on campus. The Office of Information Technology will provide students with information as to the location of these clusters and the types of machines and printers that are found in each one. For example, printing is limited to 800 pages per semester.

Q9: If printers are optional, is it worth it for me to buy my own?

A9: While limited printing facilities are available in the computing clusters on campus, it is certainly more convenient to have your own printer. Clusters may not always be available when you need to print a document. Also, printing at no cost will be limited.

Q10: I already have some of the standard software. May I purchase only certain packages from the Technology Center @ The Georgia Tech Bookstore?

A10: Yes, you may purchase any package separately from the Technology Center @ The Georgia Tech Bookstore. Call or e-mail them for specific software prices. Be aware, however, that the Small Business Edition of Microsoft Office, which ships with a many computers, does not include the PowerPoint application.

Q11: How can I obtain the communications/utility software?

A11: Georgia Tech has site licenses for Eudora, Secure CRT, RealSecure Desktop, and anti-virus software, which means that these applications are available to all GT students. The software can be downloaded at no cost from a GT server. For details, see the SCO website <http://www.sco.gatech.edu>.

Q12: I don't want to use one of the components of the standard software suite. Can I use something else?

A12: Our two main goals in establishing a standard software suite are to minimize software conflicts and to increase the quality of software support. To help achieve these goals, the Georgia Tech Office of Information Technology *will only support* the software in the standard software suite. If you decide to use something other than the standard software 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 to submit homework assignments to your professors. Given the *difficulty* and the *time* associated with doing this, it is recommended that you use the standard software suite listed under the "Standard Software" section.

Q13: Can I create PDF files without Adobe Acrobat?

A13: See the previous question about support; OIT supports Acrobat. However, there are other ways to create PDFs using freely available software or ad-ware. One is to use Ghostscript and GhostView, free from <http://www.cs.wisc.edu/~ghost/>. Another is option is the pdf995 print driver for Windows (www.freeware995.com/bin/pdf995.exe) which is distributed as ad-ware.

Q14: Can I use Linux and open source software?

A14: See question 12 about support; Linux is not supported by OIT. However, it would be possible to use Linux and Open Source software to satisfy the aims of the Student Computer Ownership Program. Here is a table listing some software options:

Type	Vendor	Software Title
Operating System	RedHat/Fedora, SuSE Mandrake, Debian	Linux
Communications		Ximian Evolution or Mozilla e-mail
	Mozilla Foundation	Firefox v1.0
		OpenSSH
		F-Prot Antivirus for Linux
		Firestarter
Productivity & Education	CodeWeavers	CrossOver Office to run Microsoft Office products OpenOffice/Star Office
	Adobe	Acrobat Reader, or xpdf, or Ghostscript
	Macromedia	Dreamweaver MX could be run in an emulator such as WINE or VMWare
	Waterloo Maple	Maple 9 (for Linux)
	Mathworks	Matlab 7.01 (Release 14sp1 for Linux) Octave

Q15: I already use a different internet service provider, can I stay with that ISP and still access my Georgia Tech account?

A15: Secure Shell (ssh) is a secure and encrypted way of connecting to a unix system such as Acme (the name given to the Georgia Tech complex of Sun systems). The acme machines have ssh running on them which will allow connections from off of the Georgia Tech campus. Therefore, students using an ssh client, may establish a connection to the Acme system from any Internet Service Provider (ISP) in order to do class related work, check e-mail, or create a web page.

Q16: I have an older computer that I am going to upgrade to meet the hardware requirements listed in this document. What can I do if I want to continue to run an older OS, such as Win 98 or *Me* or Mac OS 8 or OS 9?

A16: While we recognize that an individual may have a good reason to continue to use an older OS on their machine, we reiterate that OIT is only in a position to support the software suite listed in this document.

Q17: Is there somewhere on campus that I can have my computer serviced if something is wrong?

A17: You can call or take your computer to the Customer Support Center for assistance but not repair of your computer. The Customer Support Center can provide you with a number of local vendors if your computer is no longer covered under warranty.

Q18: Should I purchase a wireless card?

A18: Please see the section entitled **Wireless Access**.

Q19: Where can I find more information about using the Georgia Tech network and computer systems?

A19: The following two web pages contain detailed information and links to other useful pages: <http://www.security.gatech.edu/policy/>, and <http://www.resnet.gatech.edu/>

Q20: What can I install to remove pop-up ads and spyware from my computer?

A20: The programs Spybot-S&D <http://www.safer-networking.org/> and Ad-aware <http://www.lavasoftusa.com/software/adaware/> will address these problems. They are both distributed in free versions.

Q21: Should I buy a larger monitor for my system?

A21: If you can afford it within your budget, a larger monitor (17" or 19") would be a good investment. If space is an issue, a flat panel monitor would also be attractive. However, these options can get costly.

Q22: Should I purchase a CDRW or DVD-RW?

A22: These re-writeable drives are not listed as part of the hardware specifications because they are not necessary, but one or the other might be convenient. Both are more costly than a CDR.

Q23: Should I purchase a Flash Drive?

A23: These devices allow you to easily store and transfer files via the USB port on your computer and can prove to be invaluable.

Q24: How can I protect my laptop from theft?

A24: In addition to careful handling and storage, there are products available for tracking stolen laptops. One product that can be purchased with the machine is Computrace from Absolute Software. For more details please consult their web site at <http://www.absolute.com/public/computracepersonal/default.asp>

IMPORTANT CONTACT NUMBERS AND ADDRESSES

More information:

Georgia Tech Student Computer Ownership Initiative

Website www.sco.gatech.edu

Technical/connectivity/compatibility questions:

GT Office of Information Technology Customer Support Center

Telephone..... 404-894-7173

E-mail..... support@oit.gatech.edu

Website www.oit.gatech.edu

ResNet (Department of Housing)

Telephone..... 404-894-0044

E-mail..... support@resnet.gatech.edu

Website www.resnet.gatech.edu

General pricing/availability/ordering:

Technology Center @ The Georgia Tech Bookstore

Telephone..... 404-894-2377

Fax..... 404-894-2530

E-mail..... Tech.Center@bks.gatech.edu

Website gatech.bkstore.com

Financial aid/alternative loans:

Georgia Tech Office of Student Financial Planning and Services

Telephone..... 404-894-4160

E-mail..... finaid@gatech.edu

Website www.finaid.gatech.edu

Personal loans:

Bank of America (Metro Atlanta)

Telephone..... 404-768-2265

Telephone (Outside Metro Atlanta)..... 800-299-2265

Apple Computer Loan Program

Telephone..... 800-APPLELN

Website www.apple.com/financing

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