

Information Technology



Office of the Vice President
for Information Technology



VirginiaTech
Invent the Future

Virginia Polytechnic Institute and State University

New Faculty and Staff: Getting Started with Information Technology

Start with these basic steps, and for more detailed information, see “Help and Tutorials: Getting Started” on www.computing.vt.edu. Your department will assist with hardware for computing and communications.

- Read the Acceptable Use Standard to understand your responsibilities (www.policies.vt.edu/acceptableuse.php).
- Create your personal online identifier—your PID, your key to e-mail, course management systems, library databases, online personal information, and many other services. See my.vt.edu.
- You or your departmental system administrator need to be sure your computer has appropriate security settings. Run the VTnet CD, a collection of software that will help you configure your computer to be secure and to run Virginia Tech services. Find “VTnet 2008” under “Security—Antivirus” on computing.vt.edu.
- Connect to the Internet—from your office connections established by your department or through the wireless network. Use the virtual private network to connect securely over wireless.
- Configure your e-mail. Faculty and staff members are encouraged to use the Exchange service, a premier e-mail and calendaring solution. Establish your account through Hokies Self-Service (<https://selfservice.w2k.vt.edu>).
- Set your preferences for VT Alerts (www.alerts.vt.edu).
- Verify your emergency contacts. From my.vt.edu, select the “Personal Info” tab.
- Your first source for more information: www.computing.vt.edu.
- Your source for help with computing: www.4help.vt.edu or 540/231-4357, or contact your departmental support staff.

You will find additional services and sources of help in this guide.

This guide is posted at www.computing.vt.edu with detailed links to additional information and support.

Acceptable use of information technology is ethical, reflects academic honesty, and shows restraint in the consumption of shared resources. It demonstrates respect for intellectual property, ownership of data, system security mechanisms, and individuals’ rights to privacy and to freedom from intimidation and harassment.

Virginia Tech is an equal opportunity/affirmative action employer
VT/0808/8M/290156

What's New

Student pictures

Instructors and advisors may now access student photographs within Faculty Access/HokieSpa. The Detail Class List and Summary Class List pages for instructors and List of all your Advisees with E-mail Addresses have the pictures available.

Scholar upgrade

With the summer's upgrade of Scholar, new features make it an innovative tool for teaching and learning. Podcasting, blogs, wikis, a much-improved test and quizzes toolset, and the ability to create and manage groups are among the many enhancements (*learn.vt.edu*).

Security for sensitive data

Responsible handling of university data is underscored by a new Virginia law dealing with personally identifying information that is associated with identity theft. University requirements place limitations on the use of Social Security numbers, credit/debit card numbers, bank account numbers, driver's license numbers, passport numbers, or names with dates of birth in documents. Review the new policy, Policy 7105, on protecting university information in digital form as well as the Social Security number policy (*www.policies.vt.edu*). For additional information, see *www.security.vt.edu/sensitiveinfo.html*.

Residential connectivity measures

Have you wondered about connectivity from home? You can determine your residential Internet connection speed by running the bandwidth testing application at *www.ecorridors.vt.edu/maps/broadbandmap.php*. Adding your residential data can help researchers gain deeper insight into Internet access conditions available to faculty, staff, and students.

Wireless

Upgrades to the wireless network bring new options for logging in, including Hokies IDs and netcerts (network certificates), streamlining the process to access the wireless network. See "Wireless LAN" on *www.cns.vt.edu*.

Software sales to the faculty and staff

Selected software is now approved for individual purchase from Software Sales on Torgersen Bridge (*www.ita.vt.edu*).

Security



Your gateway to security is the Information Technology Security website—www.security.vt.edu. Look for the IT Security Quarterly Hot Sheet for additions and alerts. Follow the three critical steps on the Faculty/Staff page:

1. Update your operating systems and software frequently;
2. Install and update anti-virus software;
3. Use a firewall.

Use the resources and tools to comply with university policy to secure your systems. New this year is **Intrusion Detection Systems** to scan your computer at your request, assessing the risk that

your computer may be—or has been—compromised by unauthorized users (<http://ids.cirt.vt.edu>).

Download the **VTNet** 2008 software package (www.antivirus.vt.edu) to set your computer for both security and for computer configurations helpful at the university.

VT WSUS serves Windows systems and core Microsoft applications. Look under “Security” on computing.vt.edu. VT WSUS reduces the number of vulnerable and exploited systems by automatically performing the testing and installation of necessary updates.

Personal and sensitive data

“PII”—personally identifying information—has become the shorthand for the data most valuable to identity thieves. Virginia Tech’s new standard to protect this information restricts storage and transmission of Social Security numbers, credit/debit card numbers, bank account numbers, passport numbers, driver’s license numbers, and names in combination with full dates of birth. If you access or handle any of these elements, be sure to read and follow the standard.

Begin by identifying any Social Security or credit/debit card numbers that you may have forgotten by running **Find_SSN**.

Inappropriate exposure of other university data can cause financial, reputational, or physical harm to the university

or to its employees, students, alumni, friends, or business partners. See the Standard for Protecting Sensitive University Information Used in Digital Form.

Find these resources at www.security.vt.edu/sensitiveinfo.html.

If you suspect an unauthorized exposure of personal information, report it immediately by calling 540/231-HELP (540/231-4357).

Spread the word

Awareness of security threats and protection is the first step in avoiding hacking, data exposures, and other security breaches. The Security Office staff is available for presentations (540/231-7694). Also, see the FDI material on online security (Search for “computer security” at www.fdi.vt.edu).



Communications



Subscribe to the VT Alerts urgent notification system (www.alerts.vt.edu).

Accessing the network

In on-campus buildings, wired Ethernet ports provide connectivity. Modem pool accounts are available for remote access. Subscribers to either of these services are also eligible to subscribe to **wireless** and **Virtual Private Network** service. A new secure and convenient method for wireless access lets users log in with Hokies IDs or with netcerts. See www.cns.vt.edu.

VT Mobile Messaging service integrates personal digital assistant capability with mobile phone convenience. Supported devices are listed under “Mobile messaging” on www.cns.vt.edu to provide continuous wireless synchronization with Exchange.

E-mail

Your e-mail account is named for your PID, and PID@vt.edu is an e-mail address. Create up to three additional alternate addresses or aliases for this account through the “Personal Info” tab at my.vt.edu.

Virginia Tech provides two e-mail services, VT Mail for students and employees and Exchange for employees. Available only to employees, **Exchange** provides e-mail, calendar management, and related tools, and permits you to delegate selective access to co-workers. Access Exchange through WebOutlook (weboutlook.vt.edu) or with software such as Outlook or Entourage. Establish your Exchange services at <https://selfservice.w2k.vt.edu>. Use the “My Information” tab to select a “from/reply to” e-mail address.

Versatile mailing lists—**LISTSERVs**—can be configured for classes, discussions, event notifications, and news delivery. See “E-mail & Calendaring” on computing.vt.edu.

Junk Mail Manager quarantines suspected e-mail spam in a separate folder. To set your rules and manage your folder, go to <https://junk.mail.vt.edu>.



IM

Point your IM client to Virginia Tech's instant messaging (IM) service. See "IM" under "E-mail & Calendaring" on computing.vt.edu.

Mail

University Mail Services (www.mailservices.vt.edu) now reports to Transportation and Campus Services (formerly, the Office of Transportation).

Remote conferencing

The university phone system facilitates **conference calling** for up to eight participants. Use the state's teleconferencing service (www.cns.vt.edu) for more complex calls.

Interactive video conferencing facilities enable Virginia Tech faculty and staff to offer classes and share expertise with peers worldwide (www.vbs.vt.edu).

The **Access Grid node**, an application of the Internet2 network architecture, provides large-scale distributed meetings, collaborative work sessions, seminars, lectures, and training. Services include multimedia large-format displays, presentation and interactive environments, and interfaces to Grid middleware and visualization tools. Call 540/231-6460.

Telephones

Telephone service is available to meet different needs. To order or change services, contact cnsdesign@vt.edu.

Instruction

Course management tools

Designated instructors of record may access rosters, grade sheets, class listservs, and related tools through **Faculty Access/HokieSpa**. Student photographs, new this year, are a part of the student's educational record, and all FERPA rules and regulations apply. Select the "Courses" tab after logging in to *my.vt.edu*.

Every credit course has an instructor-controlled template in **Blackboard** (*learn.vt.edu*). For support, contact 4Help at *4help.vt.edu* or 540/231-HELP (540/231-4357).

Scholar consolidates course management with research and collaboration tools as well as **ePortfolio**. New features include podcasting, blogs, wikis, an improved test and quizzes toolset, and the ability to create and manage groups. See *scholar.vt.edu*.

Courseware (*courseware.vt.edu*) has file storage for course websites and for sharing or transferring data. **Filebox** (*filebox.vt.edu*) is another storage tool for projects or classes.

Enhancing instruction

Faculty Development Institute summer workshops and short courses during the year provide participants with guidance in integrating technology into courses. Faculty members are eligible to receive new hardware and software on a four-year cycle (*www.fdi.vt.edu*).

The **Graduate Education Development Institute** addresses graduate students' professional development, focusing on integrating advanced technologies (*www.gedi.vt.edu*).

The **Software Skills Gateway** offers more than 600 software tutorials for faculty, staff, and students. Check under "Help & Tutorials" on *computing.vt.edu*.

Check with **Information Technology Acquisition** for specialized software for your discipline (*ita.vt.edu*).

Multimedia

The multimedia facilities in the **InnovationSpace** (formerly the New Media Center) are ideal for student projects, faculty collaborations, creating instructional materials, and investigating emerging technologies (*www.nmc.vt.edu*).



Digital Imaging

Digital Imaging provides archival scanning for existing image collections for instructional and research purposes. To submit a proposal, see www.emd.vt.edu.

Video/Broadcast Services assists with streaming files, downloadable files, and video conferencing (vbs.vt.edu).

Evaluation and assessment

Test Scoring provides optical mark reader processing of forms (opscans) used for exams and course evaluations (www.testscoring.vt.edu).

Evaluation tools are available in **Blackboard** (learn.vt.edu) and **Scholar** (scholar.vt.edu), and **ePortfolio** within

Scholar offers student and programmatic assessment tools. An online course evaluation tool for student ratings of instruction is available at courseeval.cc.vt.edu.

Computer-Integrated Classrooms

The staff of Computer-Integrated Classrooms (www.cclab.vt.edu) supports instruction needing specialized software or controlled environments—including online test-taking.

Assistive Technologies

The **Assistive Technologies** unit supports disability accommodations based on assistive technologies for students, faculty, and staff. Call 540/231-3461.

Research

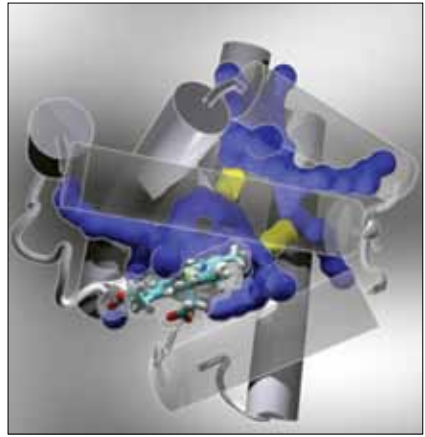
High-performance computing

For access to **System X**, submit project information at www.arc.vt.edu. New storage available through **mobybits** is an SGI InfiniteStorage 4500. For training and support, see the “Services and Support” section of the Web page.

Dante and **Styx** are two Sun compute servers available for general research applications. Both servers support SAS, MATLAB, and R; Dante also supports IMSL.

The **Inferno** systems are SGI Enterprise ALTIX 3700 Superclusters and **Cauldron** is an SGI ALTIX 4700 Supercluster. A new queuing system schedules jobs on these SGI systems, enhancing performance.

Visualization tools can lead to insights into new properties and relationships in data. University researchers can use immersive visualization venues—active and passive stereo rendering walls, head and device tracking, and the fully surrounding CAVE. The Visual Computing faculty and staff can help format or convert data, choose visual analysis tools and content pipelines, and develop visualization applications and proposals.



Researchers use supercomputer to track pathways in myoglobin

For access and information on these research computing systems, see www.arc.vt.edu.

Access to global networks

The campus network connects to multiple high-performance research networks. The university takes a leadership role with responsibility for operating **NetworkVirginia**, Virginia’s optical **VORTEX** network, and the mid-Atlantic node of the **National LambdaRail**. Virginia Tech has a 622 Mbps connection to NetworkVirginia and the Internet and a 10 Gbps link to access National LambdaRail, the **Mid-Atlantic Crossroads network**, and the **Internet2** network services. These national networks link

major laboratories and computational centers throughout the country and peer with international research networks. Use this connectivity to enhance research, teaching, and collaboration. For more information, contact Jeff Crowder at 540/231-3900.

Grant management

The **Data Warehouse** assists grant management with information on proposals and grants. Visit www.iwa.vt.edu for information on access and training.

Research collaboration

Use **Scholar** to facilitate collaboration with access controls for shared calendars, announcements, a file repository, and other collaboration tools (*scholar.vt.edu*).

In addition to Research Computing, several other IT units collaborate with faculty and student researchers. The **IT Security Lab's** test facility for cybersecurity research is available to faculty and qualified students. E-mail itseclab@vt.edu. The **Assistive Technologies Lab** collaborates on multidisciplinary research in assistive technologies and welcomes faculty and student research projects. Call 540/231-3461.

Specialized software and tools

Information Technology Acquisition offers specialized software for engineering, GIS, mathematics, statistical analysis, and bibliography management. ITA welcomes additional software suggestions (*ita.vt.edu*).

Use survey.vt.edu for online surveys, website feedback, and registration forms. **Test Scoring Services** assists with optically scanned paper survey forms (www.testscoring.vt.edu).

Support and training

Some **Faculty Development Institute** (FDI) workshops focus on specific research tools. Others concentrate on general research issues, including experimental design, external funding, and manuscript preparation (www.fdi.vt.edu).

Graduate Education Development Institute (GEDI) offerings include programs in computational science. For both FDI and GEDI opportunities, visit the "Training" section of the www.arc.vt.edu website.

Departmental Administration

Administrative reports & authorizations

Human resources and finance reports are under “Administrative Systems” on computing.vt.edu. Use the **Data Warehouse** for additional reports on human resources, finance, sponsored research, and student processes (www.iwa.vt.edu). Request specialized student reports at studentrequest@vt.edu.

The Controller’s Office oversees listings of department heads. This listing will be used to verify some of the authorizing actions for Information Technology services. Update your department’s information by contacting your senior management area.

Security responsibilities

Visit www.security.vt.edu for tools and procedures to maintain the security of your information technology resources. Review your department’s use of sensitive and personally identifying information (www.security.vt.edu/sensitiveinfo.html). Schedule a **security review**. Staff will recommend ways to reduce vulnerability and risk, and ensure compliance with Policy 7010. Contact the IT Security Office at 540/231-7694.

E-mail for departments

Share responsibilities for departmental or project correspondence through **VT PACE Addresses**. See “E-mail and Calendaring” on computing.vt.edu.

Hardware and software

Participate in the **Faculty Development Institute** (www.fdi.vt.edu) and the **Academic Client Computer** program (see “Administrative Systems: Banner” on computing.vt.edu) to help with technology refreshes. Information Technology Acquisition has software for departments and selected titles for sale to employees. ITA also leases laptops to departments for programs or special needs (ita.vt.edu).

Web options

The **web hosting service** provides departmental website space (see “Internet & Web: Web Publishing” on computing.vt.edu), and the **Blacksburg Electronic Village** (540/231-4786) can assist with Web development. Web accessibility standards are posted at www.accessvt.atc.vt.edu.

Digital signatures

Personal digital certificates can be issued to employees to streamline departmental online processing while retaining the value of “ink-on-paper” signatures. Contact Mary Dunker (seti@vt.edu).

Printing and copying

Printing Services (www.printing.vt.edu) now reports to Transportation and Campus Services (formerly the Office of Transportation).

Personal Information

Public contact information

Employees' work contact information appears in the university online directory, **VT PeopleSearch** (www.vt.edu).

Work contact information is also in the printed directory and in the Commonwealth of Virginia online directory. Manage the display of your residential information and select a preferred e-mail alias to display from the "Personal Info" tab in my.vt.edu. Selecting an e-mail alias as your Exchange "from" address can be managed through Hokies Self-Service.

Important: If you suspect stalking, harassment, or threats, contact the Virginia Tech Police (emergency phone 911) or the Department of Human Resources immediately (540/231-9331).

Authorized departmental staff members maintain **working titles**. See "Banner" and "HRIS" under "Administrative Systems" on computing.vt.edu.

Emergency contacts

Review and update your emergency contacts through My VT's "Personal Info" tab (my.vt.edu).

Administrative information

While in the "Personal Info" tab, review and update your address and telephone information, tax forms, and pay stub preference. Other personal settings and information can be viewed from the "Personal Info" tab, including leave balances, earnings and deductions histories, benefit plans, and more.

Protecting information

As an employee, your personal information is protected according to policy and standards (see www.security.vt.edu/sensitiveinfo.html). It is your responsibility to protect others' personal information you handle according to those same standards.



For Technical Personnel

For technical personnel

See “Resources for Computer Support Personnel” under “Help & Tutorials” on *computing.vt.edu*. Share solutions, links, tips, scripts, and source code on the **IT-KnowHow wiki** (*itknowhow.w2k.vt.edu*).

Authentication and authorization

New features of the Enterprise Directory (ED) include **GroupTools** for managing ED group membership and subsidiary groups. Look for the coming ability to use **CAS**—Central Authentication Service—for authorization as well as authentication. CAS provides secure single-sign-on for online applications.

The **Shibboleth** project supports federated identity management among higher education and related institutions. Virginia Tech is a member of the InCommon federation. See “Infrastructure Services” on *computing.vt.edu*.

Consider **personal digital certificates** for departmental process authentication and digital signatures. For more information, e-mail Mary Dunker (*seti@vt.edu*).

Virginia Tech SSL **server certificates** enable server authentication and traffic encryption for Web communications. See “Security & Viruses: VT Digital Certificates” on *computing.vt.edu*.

Windows administration

The Hokies domain is the university’s central Active Directory service. **University Services** is an end-user domain oriented to providing desktop/laptop computers with automatic updates. Select the management level that best meets your needs. **Central Services** provides departments with a stable, secure domain with flexibility in assignment of management tasks to departments or central system administrators. **Hokies OU Admin** is used by OU administrators and child domain administrators (*ouadmin.w2k.vt.edu*). See “Infrastructure Services: Hokies Domain” on *computing.vt.edu*.

VT Windows Software Update Service (VT WSUS) provides automatic updates to Microsoft Windows and core applications along with reporting capabilities for employees’ computers. See “Security: VT WSUS” on *computing.vt.edu*.

Web hosting and development

For Web resources, see the **web hosting service** (“Internet & Web: Web Publishing” on *computing.vt.edu*); **Blacksburg Electronic Village’s** Web development service (540/231-4786); Web accessibility standards (*www.accessvt.atc.vt.edu*); and the **Webmasters’ Toolkit**—“Internet & Web: Web Publishing” on *computing.vt.edu*.



General help

Help request form: www.4help.vt.edu

Customer support agents are available 24 hours a day, seven days a week to reset passwords, to monitor system outages, and to take questions on computer-related problems. The Customer Support Center (4Help) consulting service is available from 8:00 a.m. to 5:00 p.m., Monday through Friday, to assist with questions that require phone consulting or to schedule a walk-in service. Services are available to current Virginia Tech affiliates only.

If you need your password reset, wish to report a system outage, or have difficulty using the 4Help Web form, please call 540/231-HELP (540/231-4357).

Index of services: www.computing.vt.edu

For troubleshooting: www.answers.vt.edu

Topical help

See answers to frequently asked questions on the **network and telephones** on the Help/FAQ page at www.cns.vt.edu.

For help specific to **Blackboard** and course management tools, see “help” at learn.vt.edu or ask questions via 4help.vt.edu.

Security checklists are available on www.security.vt.edu. For antivirus protection, see www.antivirus.vt.edu.

Learn more

Increase your information technology skills with self-paced courses and tutorials at the **Software Skills Gateway**. See “Classes & Courseware: Software Skills” on computing.vt.edu.

Status reports

For notices of planned maintenance downtime of centrally provided services and for information about unplanned outages, see computing.vt.edu or www.cns.vt.edu. Instructional systems outages are also posted at learn.vt.edu.



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