

# New User's Intro to Computer Science Computing Resources.

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Welcome to the Computer Science Department! As a new member of the department, there are many unfamiliar things that you need to know. This document will attempt to ease your transition into using the department's computing resources and will hopefully get you started as soon as possible. Please note that the main website for Computer Science department is <http://www.cs.rutgers.edu> where you can get all information about Computer Science department and its resource. This document is to help you get some outline of what is available.

## Things you need to start

To begin with, there are a few things you need to know and get before using any of the department computing facilities. You need to familiarize yourself with all available resources and what you need to access them.

### I. Getting Access to Resources

This section will show you how to get access to them and the next section will tell you partially what they are. FYI: Computing resources can easily be accessed from the website <http://www.cs.rutgers.edu/resources/> where more up-to-date information is store. Please note that this document will only tell you resources you need to get you started. When you are more familiar with the department, you will learn about other resources and contacts that will give you even more resources. To get access to the department computing resources, you will need computer accounts to do your work, to read or send email, and to access rooms.

#### **Computer Accounts**

In the Computer Science department, access to some computing resources requires a username and password. These username and password can be obtained by following a few procedures. The procedures are outlined at: <http://www.cs/resources/howto/> under **Account Related**.

We have several different types of accounts available for different resources in the department. They are essentially divided into 3 groups:

1. Unix command line accounts (eg, faculty, research or student login accounts);
2. Webmail/IMAP/POP email accounts.
3. LCSR domain accounts (for WindowsOS within DCS and accessing unix files on Macs and PCs)

For more details on these accounts see: [http://www.cs.rutgers.edu/resources/new\\_users/getting\\_started.shtml](http://www.cs.rutgers.edu/resources/new_users/getting_started.shtml)

Note: Graduate students admitted to the department are expected to create their CS Unix and CS Email accounts themselves as soon as they are admitted to ease communication with the department. Follow instruction that was sent to you in your acceptance material.

Undergraduate students who are declared CS majors or are taking a CS 111 class or higher, get an account built for them.

#### **Access to Rooms – Keys and Keycards**

Access to the Computer Science resources is normally not for the public. Resources are often placed in a semi-private room where access is allowed via a keycard system. All the department's computer labs and printers require keys or keycard access. Access to the department's copiers is also managed by a keycard system. The keycard used for the labs and printer rooms is normally a Rutgers Connection ID card. The Rutgers ID card needs to be activated before it can be used to access any resources in the department. Access for students is normally requested by instructors of the class. To activate your keycard or obtain keys for non cs-major room, see: [http://www.cs.rutgers.edu/resources/rooms\\_and\\_equipment/keys\\_and\\_keycards/](http://www.cs.rutgers.edu/resources/rooms_and_equipment/keys_and_keycards/)

## II. Department Resources

Information on Computing Resources of the Computer Science department can be found in the main computer science website. The website is located at: <http://www.cs.rutgers.edu>.

The Computer Science department is located in two buildings, Hill Center, CoRE and CBIM. In CoRE, the Computer Science department occupies the second, third and part of the fourth floor.

Main computing resources are hosted in CoRE's second floor and as the result, all computing support staff offices can be found on CoRE's second floor. The main CS office is located in the Hill Center, Room 390.

### Computer Labs

Besides computer resources available in your office, the Core second floor machine room and other [specific research labs](#), the Computer Science department has specialized computer laboratories that can be accessed by most faculty/staff of the department. These laboratories are there for the special needs that have arisen through the years. All our computer labs have access to the room restricted by keycard. Except for the research labs, generally if you can access the room, you are allowed to use the resources inside it.

#### - Graduate Computing Lab – Hill 354

This lab is located in Hill Center room 354. This lab is for graduate students to do their work. Resources in this lab can also be used by any faculty/staff of the Computer Science department. In this lab, you can find Linux desktops, along with Macintosh desktops and Microsoft Windows Desktops. Accesses to Linux machines in this lab are restricted to your graduate account and access to the Macintosh and Windows require your RCI/Eden password. (University wide account)

#### - Computer Science 110/170 TA Lab – Hill 378

This lab is located in Hill Center room 378. This lab is for the use of CS110/170 Teaching Assistants only. This is where these TAs hold their office hours and do their work. In this room, you can find Windows Desktops along with Macintosh Desktops. Access to machines in this lab requires your RCI/Eden username and password.

#### - Instructional Labs at Hill 248, 250, 252 and 254

These are instructional labs located in Hill Center rooms 248, 250, 252 and 254. Access to these labs is restricted to students in the high level CS classes and these rooms may be reserved for special purposes. These labs are used by students to do their work and for teaching. Even though the names are different for the machines in 248, 250, 252 and 254, they are often called as a whole as the Instructional Labs. If you have an account on the iLab cluster, you have access to any of these other instructional lab machines. All of these machines run the Linux OS. Access to these machines is restricted based on the classes you take. For more info about this lab, see <http://www.cs.rutgers.edu/resources/systems/ilab/>

#### - VOS Lab – Virtual Operating System Lab.

As its name implies, this is a virtual laboratory. It is actually located in the CoRE second floor machine room but these resources are accessed remotely. This lab was built for Graduate and Undergraduate level Operating System classes. This lab allows students to develop, test and debug Linux kernels. For more information on this lab see: <http://www.cs.rutgers.edu/resources/systems/voslab/>

### Computing Hardware/Software

All our systems are configured in a similar fashion and they should all have the same software installed in them. For details information about what hardware/software we have on our:

Macs and PCs: <http://report.rutgers.edu/mrtg/microcomputers.html>

Faculty Cluster: <http://www.cs.rutgers.edu/resources/systems/faculty/>

Research Cluster: <http://www.cs.rutgers.edu/resources/systems/research/>

Student Cluster: <http://www.cs.rutgers.edu/resources/systems/student/>

For a list of software maintained by LCSR for Unix/Linux OS, see <http://www.cs.rutgers.edu/resources/software/>

## **Printing/Scanning Facilities**

The Computer Science department has many centralized printers available for its community to use. Amongst them are HP LaserJet 9000 Series - a double sided high output printer, HP Color LaserJet 5m, HP LaserJet 2100 series, a faculty-use only printer, a color laser printer and HP DesignJet 755cm which is capable of printing 3feet wide and unlimited length output. These printers are distributed in Core and Hill center. For more info on these printers, drivers and printing tips see: <http://printserver.cs.rutgers.edu>

All of these printers are available from our faculty/research/graduate/undergraduate Unix machines. If you are using your own personal computer (eq. through our wireless network) with WindowsOS, MacOS X, and/or LinuxOS, you will need to setup your own drivers, see <http://www.cs.rutgers.edu/resources/howto/> under the printing section.

At the department, we also have scanning facilities. For color scanning, we have a WindowsXP computer in Hill 354 that is equipped with a color scanner that can scan any picture or photos. For help on how to scan see <http://www.cs.rutgers.edu/resources/howto/> under the scanning section.

If you need to scan lots of pages of documents into electronic format, the department also has a high-speed grey-scale scanning capability. You may need access code to do this. See the secretary in H390 for more info. Our copier located in Hill381 can scan any single or double-sided document into PDF format and email it to you. For help on this, see instruction posted in the room posted near the copier.

## **Computing Support Staff**

The Computer Science department has a group of computing support staff that manages computer equipment and supports the faculty/staff/students of the department. This group is known as the LCSR (Laboratory for Computer Science Research) staff. Support staff offices can be found on the CoRE second floor.

It is important to note that these technical staff work at various hours due to system maintenance requirements. If you ever need to get in contact with any of them personally, you should check their work hours at <http://www.cs.rutgers.edu/lcsr/people/vacation/>

<b>Operator</b>	Phone: 732-445-2001 ex 2443
<b>Hours:</b>	M-T: 9am-10pm, F: 9am – 6pm Sat: Noon-6pm, Sun: 2pm - midnight
<b>email:</b>	<a href="mailto:help@cs.rutgers.edu">help@cs.rutgers.edu</a>

If you need to talk to someone right away, you can contact the operator on duty who can help with your computing problem and s/he can be reached at **extension 2443** at the hours listed above during the weekday and partial coverage in the weekend. For current operator schedule, see <http://www.cs.rutgers.edu/~operator/>

Otherwise, you are suggested to send email to [help@cs.rutgers.edu](mailto:help@cs.rutgers.edu)

For more information about the computing staff and what part of the DCS computing community, they deal with see: <http://www.cs.rutgers.edu/people/directory.php?type=lcsr>

## **Wired and Wireless Networking**

Among the other resources in the Computer Science department is networking infrastructure. Computer Science offices are equipped with the latest networking technology that allows all faculty/staff/students to take advantage of [the RUNet2000](#) technology available in our buildings. Beside the wired networking infrastructure, the department also provides Wireless Networking capability to all Rutgers users and its visitor to both the Hill Center and the CoRE buildings.

The wireless system in the department is called LAWN (Local Area Wireless Network). The system allows all Rutgers users and visitors to access our wireless network easily. It is a friendly system that allows users with a Rutgers, selected other University or ISP's username/password to access the LAWN network. The LAWN system was created in-house by the LCSR computing staff in 2001. For more information about the LAWN system, see: <http://www.cs.rutgers.edu/resources/network/wireless/>

If you have any networking questions or a help request, please contact [help@cs.rutgers.edu](mailto:help@cs.rutgers.edu)

## **Handin: Electronic homework submission system**

**Note: Handin may soon be replaced with Sakai as all in one portal. See <http://sakai.rutgers.edu>**

One of the most useful resources we provide for faculty and students is the [Handin System](#). The Handin system was developed by the LCSR Computing Staff to provide a way for faculty and students to electronically submit their course assignments. Not only does this system save money on paper, it also saves lots of faculty and student time.

Students can submit their homework online from anywhere the Internet is available. Every submission yields a receipt that a student can use to proof to his/her instructor that the submission was successful.

For faculty, the benefit is enormous. Not only is there proof of an on-time submission, all submissions are recorded, checked for a violation [the Academic Integrity Policy](#) and can be programmatically tested and graded.

For more information on the Handin System, see <http://handin.rutgers.edu>

## **Print Repository**

Imagine that you'd like to give material for students in your class, however you are not allowed to post it in electronic form. You certainly don't want to make 50 copies of a 150 page document or carry 7500 pages of paper to your class only to bring back half of it when only half of your student attend the class. The Print Repository allows you to make a document available only for printing – it can not be saved electronically. When you need such a resource, please see: <http://remus.rutgers.edu/repository/>

## **Reserving Rooms or Equipment**

At the Computer Science department, there are a few rooms that are very popular and a some equipment faculty/staff and graduate students can borrow to supplement a lecture, presentation or other need. Because of their popularity these resources have to be reserved before they can be used. The list of resources changes as the need arise. The popular rooms are classified in 3 groups, Conference Rooms, Computer labs and Classrooms. The popular equipment is normally projectors, digital camera, camcorder and microcomputers.

The equipment is available for faculty/staff and graduate students to use on first come first serve basis, but the rooms have stricter reservation and usage rules. For more information on Room & Equipment reservation, see: [http://www.cs.rutgers.edu/resources/rooms\\_and\\_equipment/reserving/](http://www.cs.rutgers.edu/resources/rooms_and_equipment/reserving/)

## **Spam and Virus Checking**

Spam - also known as Unwanted Bulk Email (UBE) and Unwanted Commercial Email (UCE) along with Computer viruses (defined as dangerous computer programs that have destructive behavior), are actively checked on all the Computer Science department computer systems.

In the department, all email is checked for viruses and evaluated for its spam content. Any email containing known viruses are automatically destroyed while any email containing spam is tagged and delivered. The tags, left inside each individual email, provide details that describe the email content. To avoid censorship concern, no spam email is destroyed automatically. Users can utilize the tags left by the spam engine to ease spam email management. Computer Science users can utilize the tags set by this spam filter by setting up rules in the central server or in their mail reader. More details on these rules available at: <http://www.cs.rutgers.edu/resources/howto/> under the **mail related** section.

## **System Availability and Maintenance Activities**

Maintaining the resources in the Computer Science department requires a lot of work. Some of this work involves checking daily activities. Some involve long terms log recording to see how resources are used or behaving under a certain situation. All of these activities are recorded for any users to see and are available at <http://report.rutgers.edu>

From time to time users will notice email sent by the support staff announcing certain planned activities, or certain emergency activities. These activities are archived and recorded for at least one year and are available. If you ever need to go back to some announcements or would like to see planned announcements, see:

<http://dragon.rutgers.edu/LISTS/maintenance/List.html>

## **Computing Help**

Getting help is one of the most important things you need to do when you encounter a problem with your computer or the department computing resources. Below you will find many ways that you can obtain help to fix your computing problems. The LCSR computing staff are here to help you with any of your computing problems, in fact, if you notice a problem with any of our resources, you should report it right a way so that other users won't have to deal with the same problem..

Below you will find a few ways that you can obtain help or report problems.

### **A. General Support**

Generally problems can be reported by sending email to [help@cs.rutgers.edu](mailto:help@cs.rutgers.edu). This is the central place where one should report any problems regarding any of the department computing resources or questions.

In an emergency or a situation where you can't use your computer, or you need ink or paper added to the printers, etc, you can call the LCSR operator at 732-445-2001 ext. 2443 immediately so proper action can be taken to resolve the matter quickly. The operator is here from 9 am to midnight during business days and partially during the weekend. You can check the LCSR operator schedule at:

<http://www.cs.rutgers.edu/~operator/>

In some cases, for example, if you have forgotten your password, you will need to come to the operator's office and present your identification to get your password reset. The operator office is located in CoRE 235. Since the operator office is adjacent to the noisy machine room and the operator could be performing disk backup, please use the doorbell outside the door to get the attention of the operator on duty. Please note that sometimes you will get no answer because the operator could be performing printer checks, aka a print-run, where the on duty operator goes to all printer locations and checks all the printers for papers, toner or ink supplies. The operator should return from these duties shortly.

### **B. Research Support**

Supporting research is one of the most important services that LCSR support staff provides. There are many [research groups](#) in the Computer Science department that depend on the department's robust infrastructure as well as well maintained resources. LCSR staff work with all kind of research requirements. Sometimes researchers prefer to manage their own resources while at the same time take advantages of department resources. For these of researchers, LCSR support staff provides special accommodations while at the same time maintain the security and integrity of department resources.

Researchers also have special needs to complete their research but are not interested in the details of machine specifications, equipment costs etc. For such needs, LCSR support staff is the appropriate expertise they can consult with.

For more information about department research related information see: <http://research.rutgers.edu>

### **C. Self Support via Computing How To's**

Many users prefer to learn to solve problems themselves. They like to try it themselves and only if they are still having problems, would they contact the support staff. For this type of self motivated people, self

support how-to can provide quick and easy instructions on how to do things themselves. Many of these online documentations are specific to Computer Science resources and they get updated as the need arise. For detail lists of these self support material, see: <http://www.cs.rutgers.edu/resources/howto/>

#### **D. Instructional Support**

In the Computer Science department, instructional support is provided to faculty/staff and students in different categories. Instructional support for faculty/staff is normally in the form of software installation, support for class needs and lab access for students. Faculty/Staff are expected to provide software requirements to the instructional support staff 4-6 weeks prior to the start of semester to give ample time for installation, test and documentation of the required software. Access to the instructional labs should be requested in the first week of the semester to avoid access delay to the department computing resources. To activate your keycard or obtain keys for certain room, see:

[http://www.cs.rutgers.edu/resources/rooms\\_and\\_equipment/keys\\_and\\_keycards/](http://www.cs.rutgers.edu/resources/rooms_and_equipment/keys_and_keycards/)

- E.** Instructional support to students is normally provided in the form of account creation, resource utilization, how-tos, and other computing needs. Specific groups of users use different groups of computing resources and its resources are unique in its software and security requirements. The LCSR Support staff does not provide support for Class specific assignment. Students should contact Instructor and Teaching Assistant of his/her class for help with assignments.

#### **F. Infrastructure Committee**

The Infrastructure Committee is made up of representatives of the faculty, staff, and student users of LCSR managed facilities. It meets monthly in CoRE 229. The purpose of the Committee is to address any computing issues that may arise and to plan for the future deployment of new technology. Any faculty/staff or students who is interested in attending and have comments or concerns regarding the department computing infrastructures are welcome to contact its representative or come to the meeting itself.

For more information regarding the Infrastructure Committee see: <http://www.dcis.rutgers.edu/lcsr-users-group/index.whml>

### **III. University Computing Resources**

Rutgers University has many computing resources outside the Computer Science department. Detailed information on these resources are documented by Rutgers Office of Information Technology. <http://oit.rutgers.edu>.

Information on Rutgers computing resource as a whole are summarized and classified in two groups, Faculty/Staff and Students. You can find most of the resources available at Rutgers from these documents. If you are looking for resources related to:

Faculty and Staff Guide to Computing Services, see <http://oit.rutgers.edu/fsguide.pdf>

Computing Services for Faculty and Staff, see <http://www.rci.rutgers.edu/index.php>

Student Guide to Computing Services, see <http://www.eden.rutgers.edu/index.php>

Guide to Student Computing, see: <http://rucs.rutgers.edu/studentguide.pdf>