UNIVERSITY OF MINNESOTA

Computer and Information Services Newsletter

This newsletter is an information resource for the University of Minnesota.   Volume 4, Number 5

November 1994

▽ Features

▽ Computer Store

Use Gopher for 24-hour Service
Use Gopher to search the Computer Store's database to find out part numbers, prices, and product availability. "Electronic Ordering" options are available at these two Gopher locations:

Computer Information
  U of M Microcomputer Prices
    bookstore

University of Minnesota Campus Information
  Department and College Information
    Minnesota Bookcenter electronics desk

Self-Registration is Coming!

Jeff von Munkwitz-Smith, Office of the Registrar

Winter 1995

Beginning with winter 1995 registration in November, most students who register for day classes at the University will be eligible to register themselves. Students who normally come to one of the Registration Centers in Fraser Hall or Coffey Hall to register may choose instead to register themselves.

Students in programs that have special registration procedures, such as the Medical School, the MBA program, the Unite program, etc., will continue to follow the old procedures for their programs.

Student Access System

Self-registration is one of the options on the Student Access System, one of the items on the Administrative Information Services Public Information Menu (the same one that LUMINA is on).

The system can be accessed in a number of ways, including through direct-connected terminals in the Registration Centers and the University libraries, through Internet connections in the CIS Computer Facilities, computer labs in the residence halls, and some collegiate and departmental labs, and via SLIP. (See the

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**The system is normally available from
7:30 am until 9 pm—or later—
during the week and from
8 am until 3 pm on Saturdays.**

Getting Connected section in the fall 1994 or winter
1995 *Class Schedule* for details.)

Pilot Group

The first small pilot group of students began to use the
system in February 1994. During fall 1994 registration,
over 2000 students used the system to process their
registrations; many more students used the system to
cancel/add. Half of all students registered in the School of
Nursing used the system, as did 45% of students in General
College, and nearly a quarter of all students in the College
of Agriculture.

Registrations were processed from Heidelberg, Germany,
and the Minnesota State Fair. Student reaction to the
system has been quite favorable — told us that they found
the system pretty easy to use and that they appreciated the
increased convenience of not having to make a trip to one
of the Registration Centers during the day. (The system is
normally available from 7:30 am until 9 pm—or later—
during the week and from 8 am until 3 pm on Saturdays.)

Fee Statements

One frequent question is "how do students get their fee
statements when they register themselves?" In preparation
for self-registration, we replaced the old maroon and white
multi-part form with a one-part plain paper version. For
students registering themselves, the system default is to
send the fee statement as an E-mail message. Students can
then print the fee statement in the same way that they print
any other E-mail message. Alternatively, students can
choose a printer from a menu on the self-registration
system. Students can also choose not to print a fee state-
ment when they register, but use the system at another
time to print a duplicate.

A Minnesota Exclusive

The University of Minnesota is one of roughly 15-20
universities in the United States using this sort of registra-
tion system. In the Big 10, the University of Iowa and
Michigan State University have similar systems and several

other institutions plan to develop the capability. As far as
we can tell, Minnesota is the only institution employing E-
mail to deliver course confirmations/fee statements to
students. A number of other institutions have expressed
interest in using E-mail for fee statement delivery.

What About Special Approvals?

As part of the registration system development, we created
ways for colleges and departments to grant approvals for
such things as registration in a closed class, adviser approval
to register, temporary hold release, etc. Sets of randomly
generated 'Magic Numbers' are delivered to departments
prior to the start of registration. These numbers can be
issued to students to grant course access. When a student
enters the number on the registration system it is validated
to make sure it is one of the numbers assigned for the
course and that it has not been used by another student.

SecureID Card Required

Formatted screens were also created for use with general
registration approvals (such as adviser approval to register),
temporary hold release, and course approvals. Access to the
approval system requires the use of a SecurID card. Office
of the Registrar staff have been busy training collegiate and
departmental staff in the use of the approval screen and the
'Magic Numbers'.

Training and Help

Detailed self-registration instructions appear in the winter
1995 *Class Schedule*. A number of option self-registration
orientation sessions for students will be held just prior to
and during the winter registration period (a schedule will
appear in the *Minnesota Daily*). A registration help line
(626-4357) is available 8 am until 4 pm during the week.
Questions can also be sent via e-mail to

                `x-regstr@vm1.spcs.umn.edu`

Departments desiring training on the use of 'magic
numbers' or the approvals screens can contact the Office of
the Registrar Systems Group at 625-1800.

For More Information

For more information, feel free to contact
x-regstr@vm1.spcs.umn.edu or Jeff von Munkwitz-Smith,
Office of the Registrar, B-25 Fraser Hall, 625-1800, E-
mail: j-von@mailbox.mail.umn.edu.

A Quick Peek at Pubinfo

Home of the Student Access System and LUMINA

As discussed in the *Self-Registration is Coming* article elsewhere in this issue, the Student Access System is one of the items on the Administrative Information Services' (AIS)

```
Public Access Information Service
```

Menu. In this article we'll call that setup

```
Pubinfo
```

Pubinfo is the same menu that LUMINA is on, as shown in Figure 1.

The Gopher Path

You can enter the *Student Access System* in several ways. Those using SLIP access may want to select it from Gopher; the paths are shown below:

  University of Minnesota Campus Information
    Office of the Registrar (Class Registration)
      Student Access (3270-see item 13)
      Student Access (Telnet-see item 13)

Telnet or TN3270?

Different mainframes communicate with different types of terminals. Telnet software, which lets you establish a high speed terminal session with a mainframe computer, supports VT100 terminals, a very common terminal type. The Administrative Information Services (AIS) mainframe supports 3270 terminals; the keyboards on those terminals have keys labelled PF. Microcomputer users can access 3270 terminals with TN3270 terminal emulation software. Since the AIS system also allows VT100 access, you can alternatively use Telnet software.

What Is Terminal Software?

Terminal software like Telnet and TN3270 are different from microcomputer communications software, such as ProComm and TinCan. One of the biggest differences is that terminal software requires a network connection. (Unlike microcomputer communications software, just having a modem is not enough.) Modem users can get the necessary network connection with SLIP software.

What's a Terminal?

Terminals are dedicated, dumb devices. Their sole purpose is to telecommunicate with a "smart" computer. These smart computers are frequently called hosts and are mainframe computers or workstations, not microcomputers. Besides an interface that connects the terminal to its host, today's hardware terminals have a keyboard and a display screen — they might even have a mouse. You use the keyboard to issue commands or make requests. The commands you type in depend on what operating system the supported host computer uses.

The job of microcomputer-to-mainframe communications software is to turn your computer into a specific type of terminal. Until your computer assumes this new identify, the mainframe host will not "talk" or "listen" to your computer.

Free Terminal Emulation Software

The Macintosh and Minuet "SLIP software packages" that the Microcomputer HelpLines distribute contain Telnet software; so you can use the "Telnet" option to enter the Student Access system.

What about TN3270?

Most microcomputer keyboards do not have the PF keys that are available on 3270 terminals. Many keyboards come with keys labelled F. When using TN3270 emulation software, you generally can substitute F keys for PF keys and vice versa. Those who have keys labelled PF or F on their keyboard may want to use TN3270 software instead of Telnet. The TN3270 software allows computer users with those keys to follow some Pubinfo menu instructions more straightforwardly.

Telnet and the [Esc] Key

If you use the more common Telnet software to access Pubinfo, the system will not recognize keystrokes from F keys (or PF keys). This means even if your IBM or Mac keyboard has F keys, you must follow these steps to make a menu selection:

Hold down the [Esc] key and continue to hold it down while you press the number portion of the PF or F key reference.

SLIP Minuet

The Minuet software for IBM compatibles already gives you quick Telnet access to the LUMINA system. If you select the *LUMINA* option from the *Windows* menu, you can quickly position yourself at the opening Pubinfo menu by typing the exit quickly

```
xq
```

command *twice*. The next release of Minuet will have a separate *Student Access System* option that will quickly position you at that menu.

TN3270 for PCs

TN3270 emulation is not built into Minuet, but you can obtain a free copy of TN3270 software from the IBM Information Server. Look for it in this directory: p:\internet\tn3270.

SLIP and TN3270 for Macs

We've prepared a "3270" SLIP software package for Macintoshes. To pick up the free software, bring a blank disk to any Microcomputer HelpLine. This disk will be useful for people who have extended keyboards; that is a keyboard with F keys. If you install the TN3270 software but do not have PF or F keys on your keyboard, you still must use the (Esc) key to access some Pubinfo menu selections.

Pubinfo Menus

Pubinfo menus instruct you to use a variety of keystrokes.

PF and F Keys

Some Pubinfo menus instruct you to use PF keys and some instruct you to use F keys. Generally you can substitute F keys for PF keys and vice versa. If your keyboard does not have either of these types of keys, you can still execute the instructions; you just need to use the (Esc) key. To do this, hold down the (Esc) key and continue to hold it down while you press the number portion of the PF or F key references, for example

(Esc)(8)

Command Line and a Numbered List

Other Pubinfo menus present you with a conventionally numbered list, such as

```
9=Help.......10=Forward.......11=Backward
```
and this command line prompt

```
====>
```

You can enter the number that corresponds to the selection you want to make, such as 9 to select Help, on the command line or press the associated PF key. To enter the number, simply use your keyboard's number keys to type the number and press the (Return) key when you're done.

No Command Line and a Numbered List

Other menus present you with a conventionally numbered list but no command line, such as the CMS version of Gopher that you can find via Pubinfo. In that case you can follow the PF and F key instructions above.

Terminal ID

When you select the Telnet *Student Access* option from within Gopher, you must type in some information:

```
Please enter your terminal id
```

If you are typical, you can simply type

```
56
```

(a VT100 terminal "id"). For most computer setups, option 56 will display (echo) what you type onto your computer screen.

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the answer is

```
Please enter your terminal id; '?' for MENU;
56
```

56

Figure 1: Pubinfo Selections

```
UUU     UUU         MMMMM   MMMMM
 UUU     UUU    OF   MM MM MM MM            Welcome to the
 UUU     UUU         MM   MMM   MM        University of Minnesota
  UUUUUUUU          MMMMM       MMMMM   Public Access Information Service



Please Indicate Your Menu Selection Here ===>         and press ENTER

1 - University Libraries/LUMINA          8 - Personnel Information
2 - Computer Facilities                  9 - Future
3 - Food Service                        10 - Future
4 - Research News/Deadlines (ORTTA)      11 - Uncle Eddy
5 - Graduate School Information          12 - Gopher
6 - Public Access General Info           13 - Student Access System
7 - Telephone Directories                14 - Future

XQ - 'Exit Quickly' (return to this menu from any screen)
         - or -       (to logoff this menu)
AIS Network Available: Sunday Noon - Sunday at 6:00 A.M.
AIS Network Help:      Monday-Friday, 7:30 A.M. to 4:30 P.M., 624-0555

Message:                                 Gtway: TN3270GW Term: TCP00487
```

Figure 2: Student Access System

```
UM AIS                STUDENT ACCESS SYSTEM INITIAL ENTRY

KEY YOUR STUDENT ID NUMBER         ===> ***  _____  *****

   OR YOUR SOCIAL SECURITY NUMBER ===> ***  _____  ***

KEY YOUR PASSWORD (DOES NOT SHOW)  ===> ***            ****

AND PRESS ENTER
                     BIRTHDATE FORMAT IS MMDDYY (E.G.  070572)


THE FIRST TIME YOU USE THIS SYSTEM, USE YOUR BIRTHDATE FOR THE PASSWORD.
 YOU WILL THEN BE REQUIRED TO CHANGE YOUR PASSWORD.

IF YOU HAVE PROBLEMS SIGNING ON, CONTACT THE OFFICE OF THE REGISTRAR.
 TWIN CITIES PHONE NUMBER IS 626-HELP (AREA CODE 612, 626-4357).

                                    NUMBER OF ATTEMPTS =   __


PRESS PF12 OR ENTER "XQ" IN THE FILE NUMBER FIELD AND PRESS ENTER TO
RETURN TO THE PUBLIC ACCESS INFORMATION SERVICE MENU
```
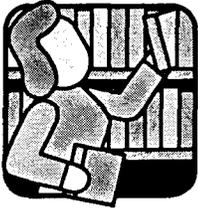
CD-ROM On Campus

Reaching the 200 Mark and Growing
Nancy K. Herther, Integrated Information Center

When CD-ROM was first introduced in the Winter of 1985, drives cost $2000 each and there were only about a dozen titles available for sale. Most of these were developed and sold by Digital Equipment Corporation — who, along with Microsoft, Sony and Philips, was one of the early promoters of the technology. It's been a long, and sometimes slow, struggle over the last ten years — but today, finally, CD-ROM has arrived.

1994 has been a year of solid growth and further market development as CD-ROMs began to take over market share for the distribution of games and software, as well as dominating in the emerging multimedia marketplace. 1995 will see further growth and penetration of CD-ROM technology, a further explosion of in-house CD-ROM production in corporations and lower prices for better quality products at all market levels.

CD-ROM on Campus

This Fall a new list of the current CD-ROMs on campus has been distributed as a special issue of the *LibraryLine* to all faculty and academic staff on campus. It contains nearly 200 titles! Something for everyone. If you haven't seen the list, check the Library Gopher or LUMINA or call one of the campus libraries for more information. If you still haven't given one of our discs a 'whirl,' please contact one of our libraries for more information and a trial 'spin.' You will be impressed.

Increasingly, the campus community is also getting into CD-ROM. Today there are over 14,000 titles available. With average costs for consumer discs at under $50, CD-ROMs are now very affordable.

The Future

What will we see in the future? Sony and Philips now promise CD-Recordable systems for under $1000, which will bring do-it-yourself publishing into a whole new arena — end-users. Changes in technology are coming along as well. HDCD, the brainchild of Philips, Sony, Matsushita and JVC will allow for packing more digital information on each disc and for extending play time with higher quality recordings.

JVC specs indicate that their approach to recording would allow for 135 minutes of MPEG-2 (Motion Picture Experts Group) images on a single disc. Since about 98% of all movies are less than 135 minutes in length, these discs could easily replace VHS and other formats. Since this is a billion dollar industry, it would only help strengthen the market share for CD-ROM — and its longevity.

JVC has developed a prototype disc with a capacity for three gigabytes of storage — an astounding improvement over today's 650MB limit. The problem will be that these discs will not be able to play on existing CD and CD-ROM systems — creating another marketing challenge. However, it seems clear that these systems will find immediate applications in many professional and in-house publishing areas. Eventual market size and acceptance are still anyone's guess.

Increasingly CD-ROM drives are being sold as standard equipment in new PCs. One major market research firm, Trendata, recently surveyed buying trends in the first quarter of 1994 and found that 30% of all consumer PCs sold in the U.S. were bundled with CD-ROM drives. This number is likely to grow to as much as 80% by 1996.

Most consumer computer systems come bundled with an average of four to six CD-ROM titles, further fueling the market for CD-ROM titles.

The Issue of Speed

Few single-speed CD-ROM drives (which transfer data from CD-ROM discs at 150kb/second) are still available today — except perhaps at swap-meets or garage sales. Although these drives can still be used for playing audio CDs, they have little value for CD-ROM. Double-speed drives, with sustained transfer rates of at least 300kb/second, replaced single-speed drives both in upgrade kits as well as in imbedded drives in computer systems. Double-speed drives make up the largest segment of the market in terms of sales of CD-ROM drives, with a market share of over 90%.

Triple-speed and quad-speed drives are still priced too high for the consumer marketplace. MPEG and Indeo CD-ROM titles will require the performance of quad- speed drives, but the market for these titles is still very small, and

won't begin to represent a major market share for at least another year or two. Until a mass market for these arrives, double-speed will dominate in this increasingly consumer-dominated marketplace. Today's CD-ROMs aren't recorded for playback beyond double-speed, so having the faster drive won't necessarily buy you better performance.

For most users — professionals as well as consumers — getting into multimedia means buying a new computer system bundled with a CD-ROM drive, sound cards, etc. Older systems pose too many potential problems and the price differential doesn't favor upgrades at this time.

Cheap Storage Option

Today CD-ROM is perhaps the cheapest storage option available, costing less than two cents per megabyte. This is making in-house publishing a reality and giving companies an immediate return on their investments while delivering a higher quality of information, on demand, and at point-of-need. As a storage medium, CD-ROM has proven its high value and flexibility in meeting a variety of needs for all types of organizations and a rainbow of applications.

What About the Next Ten Years?

What about the next ten years? Will CD-ROM, or any form of CD, still be a viable technology? No one can say. Technology is changing rapidly and, given the low costs for most technology products today, if another even better, faster, cheaper option were to arise, certainly CDs would be pushed aside just as the vinyl LP and other technologies have been in the past.
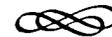
Note

This article is based on a paper written by the author and recently accepted for publication in Database magazine for their February 1995 issue. For more information on CD-ROM or our collection here on campus, please contact: Nancy K. Herther, Manager, Integrated Information Center, 6 Walter Library, East Bank; 624-2020; nherther@iic.lib.umn.edu.

Computer Store ✄ 625-3854

You can charge your purchases on your MasterCard, Visa, and Discover accounts.

▼ Computer Discount Program

Participation in the Computer Discount Program is available not only to departments but also to students and staff, subject to the eligibility rules of the program. The Computer Store is located in the East Bank Book Store in Williamson Hall. During Spring, Winter, and Fall quarters the Computer Store is open • Monday-Friday 8:30-6:00 • Saturday 10-4.

Your purchase price is protected for 30 days from the time you receive your product. If we drop the price during that time, you can bring in your receipt for a refund. The Computer Store offers a one-week money back guarantee on hardware and on any software whose seal has not been broken. Of course, you must present your sales receipt; a few other common sense restrictions also apply.

▼ CDs for Microcomputers

We carry a wide range of CD-ROM titles. Below is a brief sampling of titles that are currently in stock.

✖ American Heritage Illustrated Encyclopedia for DOS from Douglas Stewart Co for $56.
✖ Doctor's Book of Home Remedies for DOS, Windows (Sony drives are most compatible) from Douglas Stewart Co for $28.
✖ King James Bible for DOS, Windows (Sony drives are most compatible) from Douglas Stewart Co for $18.
✖ Mega Movie Guide from Douglas Stewart Co – DOS version for $35 – Windows version for $42.
✖ Countries of the World Encyclopedia for Mac or DOS from Douglas Stewart Co for $250.
✖ LOONMAGIC: Multi-Media experience about loons containing color photos, quicktime movies, and more from Wazata Technology for $30.
✖ Electronic Library Arts Western Art for the Macintosh from Douglas Stewart Co for $56.

Training Update ✂ 625-1300

Distributed Computing Services owns training packages for many popular software products. These training packages are available to University of Minnesota departments and current employees and students. There is no fee for using these packages, and you may check them out for 48 hours. However, before you can check them out, you must sign a *Usage Agreement* and leave your University of Minnesota ID with us. We will return your ID when you return the training materials.

Generally the IBM/MS-DOS disks are available on 5.25-inch 360K and 3.5-inch 720K disks; the Macintosh disks are 800K.

Reservations Required

To reserve or check out these materials, phone 625-1300 or stop in our Shepherd Labs office in room 190, Monday-Friday, 8 am to 4 pm.

Unless you use our Self-Paced Training Centers, you must supply your own equipment, such as computer and cassette player, and software, such as Microsoft Word or Windows, to use these training materials.

Training Center Hours

Location	Monday-Friday
1 Nicholson Hall	8 am to 7 pm
99 Coffey Hall	9 am to 4 pm

Recent Additions

▼ General: Computer Literacy

Video training from Anderson Soft-Teach.
- ☐ Volume 1: Components of a basic system, inside the system unit, the CPU, temporary memory, permanent storage, software-the brains behind the brawn, putting it all together.
- ☐ Volume 2: Software business tools - word processing, spreadsheets and database managers, ergonomics-comfort at the computer, building a business system, storage, input and output, portable computers.
- ☐ Volume 3: Extending your reach with networks, working in a connected company, linking your PC to bigger computers, tapping into a world of resources, configuring your computer.

▼ UNIX

Video training from UNIX Systems Labs.
- ☐ Introduction to the UNIX World: learn what the UNIX system is, why UNIX became popular - features and functionality, why it is still popular, where UNIX is today, why you might choose UNIX, where UNIX is going.

▼ IBM Access 2.0 for Windows

Audio training from Personal Training Systems.
- ☐ Beginning Access: Create a new database from scratch, modify the design of tables, use queries to display selected information and perform calculations, create basic forms and reports using Wizards.
- ☐ Intermediate Access: For experienced Access users who want to design multi-table queries and parameters and action queries, enhance the appearance of forms, create mailing labels and subforms, and understand tables relationships.

Video training from Windows Academy.
- ☐ Tape 1: Learn database, relational database, hardware needed, master windows, tool bars, macros, tables, tile and hide windows, records, print, selecting, enter data, delete records, search, edit records, shortcuts, category table, freeze columns, plan database, create new database, primary key field, input mask, validation rules, new table, redesign table.
- ☐ Tape 2: Learn tables, formatting, index records, queries, table and query properties, move fields, wizards, linking tables, create and select queries, tax query, export, join tables, add and modify query, crosstab query, sorting.
- ☐ Tape 3: Learn special query, action query, make table query, merge two tables, update queries, query wizard, make forms, forms with queries, apply filters, create custom forms, add headers and footers, use the AB tool.
- ☐ Tape 4: Learn print definitions, change field properties, form wizard, formatting fields, set up validation rules, tab orders, create sub-forms, graphing form, pop-ups, lists, radio buttons.

☐ Tape 5: Learn report, add fields, sort order, design mode, customer reports, format report, new fields, print preview, tool box, button, grids, headers/footers, color, page numbers, sorting, mailing labels, group totals, report wizard, auto report wizard, mail merge wizard.

☐ Tape 6: Learn encrypting database, convert database, import data, repair database, macros, macro-open table and print, send keys, run macros, form operations, label buttons, graphic button, and item macro.

Video training from Anderson Soft-Teach.

☐ Volume 1: Getting started, working in tables, use forms, find and sort data, use queries, view and print reports.

☐ Volume 2: Understand database design, create a table, customize tables, understand and establish table relationships, design select queries, more select queries, design multiple-table queries.

☐ Volume 3: Using form wizards, design forms and reports, enhance forms, use report wizard, design graphs in reports.

☐ Volume 4: Design parameter queries, create action queries, advanced select queries, more advanced select queries, use query wizard, crosstab query.

Video training from ViaGrafix.

☐ Introduction for Windows: This tutorial is designed to teach you the fundamentals of this database. Learn to use sample databases, create new database, edit information, query, use ports, and more.

☐ Using Access Advanced: Understanding table relationships, use report and graph wizard, restrict data access, the single-column form, tabular and graph form, use the form wizard, add drawing, add controls to the form, understand controls, add and adjust a combo box, building and calculated text boxes, database security basics, macro button, understand and work with modules, attach a macro to a form.

▼ Excel for Windows

Video training from Anderson Soft-Teach.

☐ Volume 1: Explore Excel, create and edit a worksheet, use formulas, format and enhance a worksheet.

☐ Volume 2: Use chart wizard, work with charts, add graphic objects, use names, use function, use multiple worksheets, link workbooks.

☐ Volume 3: Manage large worksheets, print large worksheets, work with databases, create macros, summarize and analyze data.

▼ FoxPro 2.5

Video training from ViaGrafix.

☐ Introduction for Windows 2.5: Learn the fundamentals of FoxPro. Learn to create databases, edit information, print report, and more.

☐ Advanced for Windows: Learn advanced features.

☐ Introduction (for computers running DOS): Learn the fundamentals of FoxPro. Learn to create databases, use tables, set field properties, save and retrieve files, perform queries, and more.

☐ Advanced (for DOS): Learn advanced features. Learn about table relationships, graphs, passwords, reports, macros, and more.

▼ Harvard Graphics for Windows

Video training from Learn PC.

☐ Introductory Course: create a basic presentation, use different views, use and create graphics, present your slides.

☐ Intermediate/Advanced Course: use templates, change the master template, enhance data charts, enhance your presentation, create a hypershow.

▼ Lotus SmartSuite for Windows

Diskette based training from Learn PC.

☐ How the Applications Work Together: This course explores how the five Lotus SmartSuite applications work together.

The applications include 1-2-3 for Windows, AmiPro, Freelance Graphics for Windows, Approach, and Lotus Organizer.

▼ WordPerfect for Windows

Video training from Learn PC.

☐ Course 1: typing, printing, and editing documents and other basics.

☐ Course 2: formatting characters, lines, paragraphs, and pages, creating columns and borders.

☐ Course 3: merging documents and creating labels, creating abbreviations and macros, creating button bars and templates.

☐ Course 4: using graphics, creating tables.

☐ Course 5: creating charts, outlines, and large documents.

▼ IBM: C++ Programming

Video training from ViaGrafix.
☐ This tutorial is designed to teach you the fundamentals of the C++ programming language. Learn function declarations, overload functions, classes, references, and more.

▼ IBM: Visual Basic

Video training from ViaGrafix.
☐ This tutorial is designed to teach you the basics of Visual Basic. Learn to use many of the Visual Basic tools and codes, buttons and bars, and more.

▼ Macintosh Basics with 7.1

Video training from MacAcademy.
☐ Part 1: Define terms, ports and connections - SCSI, serial, modem, printer, ADB, sound out, and sound in ports - starting up the Mac, finder on desktop, using the mouse, menu bar, balloon help, using windows, folders, Apple menu, control panels, chooser, using applications, saving documents, editing text, copying files, shut down.
☐ Part 2: Set up files, option key shortcuts, background copying, application menu, cancel command, views, install programs, organize files, make backups, use labels, change icons, find files, organize windows, use multiple applications, save and save as dialog box, work with floppy disks.
☐ Part 3: System versions, install software, make a start up floppy, customize the system, install and remove fonts, install sounds, add extension and control panels, use the Apple menu, aliasing, Apple menu extender, memory control panel, disk cache, virtual memory, 32-bit addressing, RAM disk, memory management, allocating memory, forced quit, preventive maintenance, disk first aid.
☐ Part 4: Use start-up folder, publish and subscribe, AppleScript, QuickTime, file sharing, create network users, use an alias, System 7 Pro, use catalog, send files, use the signer, AppleMail, send mail.

▼ Persuasion for Macintosh

Audio training from Personal Training Systems.
☐ Beginning Persuasion 3.0 teaches you how to create, modify and print outlines, check spelling, produce slides, speaker notes, and handouts.

▼ Quicken 4.0 for Macintosh

Video training from MacAcademy.
Includes updating to 4.0
☐ Personal Use, Tape 1: install the program, categories, updating to 4.0; menus, VisaCard, new file, check register, categories/transfers, checks, envelopes, set up categories, print checks, import graphics, check numbers, transactions, transaction groups, print monitor.

▼ Networks: General

Video training from Data-Tech Institute.
☐ Fundamentals of Data Communications and Local Area Networks: understanding networks, the OSI (Open System Interconnection) model.
☐ Understanding LANs: Creating a LAN, clients and servers.

▼ NetWare 4.0: Security & Access Control

Video training from IntelliNet.
☐ Volume 1: login security, password and login options, introduction to the file system, file system inheritance.
☐ Volume 2: security equivalence and effective rights in the file system, a short exploration of NDS schema, object and property rights, using NDS rights.
☐ Volume 3: NDS security inheritance; NDS security inheritance II, IRFs, security equivalence in NDS security, the public trustee and effective rights in NDS security.
☐ Volume 4: NDS, the file system, creating objects, partition management and schema management, using netadmin and the netware administrator, upgrading, planning, and implementation.

▼ Novell: System Administration for NetWare 4.x

Video training from TCT Technical Training, Inc.
☐ Module 1, Introduction to NetWare 4.x: introduction to NetWare 4.x; NetWare directory Services.

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We recently added nearly 50 new training packages to our library.

Free Help: Computing and Information Technologies

| | *Phone* | *Help Line Hours* |

Central Systems
These systems require a user name and password, which you get when you open an account.
  Qualified users can apply for grants to cover some computing related costs.
  □ EPX (Unix), NVE (NOS/VE), UZ (Ultrix), VX and VZ (VMS) .... 626-8366 ...... M—F ...... 9 am to 4 pm
  □ VM1 (IBM/CMS) 99B Coffey Hall walk-in consulting hours may vary.... 624-6235 ...... M—F ...... 9-11 am, 2-4 pm
  □ MEDLINE (MinnesotaMEDLINE on NVE) .... 626-8366 ...... M—F ...... 9 am to 4 pm

Distributed Systems: Microcomputers, Workstations, LANs
Software, hardware, peripherals, local area networks .... 626-4276 ...... M—F ...... 9 am to 4 pm
  □ East Bank .... 152 Shepherd Labs .... above .... above ..... above
  □ West Bank .... 93 Blegen .... above .... above ..... 1 pm to 4 pm
  □ St. Paul .... 58 Biological Sciences Center .... above .... above ..... 1 pm to 4 pm

E-mail and LUMINA
  □ E-mail: call for help using your University account .... 626-7676 .... M—F ...... 9 am to 4 pm
    Forgot your password? Staff: call 626-8366. Students: go to any Computer Facility – e.g., 14 Folwell, 26 Lind,
    305 McNeal,HHH 50. Troubleshooting: if Maroon or Gold are down, you'll hear a status report at 626-1819.
  □ LUMINA: call if you have trouble connecting .... 626-7676 .... M—F ...... 9 am to 4 pm

Computer Services Information .... 625-1555 ...... any day .. any time

General Information

Williamson Hall Book Center
Computer Dept 625-3854
  (inventory and prices also available on Internet Gopher)

University Computing and Information Services
Administrative Information Svcs. (AIS) Help desk ...4-0555
Biomedical Graphics, various locations 6-3939
Central Computing Services, 100 LaudCF..............6-1600
  Accounts: EPX, NVE (incl MEDLINE), UZ, VX, VZ..6-8366
  Data Entry 6-8351
  Statistics Services 5-2303
  System Status..6-1819
  Tape Librarian 6-1838
Computer Facilities (also call individual facilities) ..5-1300
_FolH 5-4896 _Lind 6-0856 _McN 4-5367 _HHH 4-6526 +more
Disability and Computing Services, voice/TTY 6-0365
Distributed Computing Services, 190 Shep Labs 5-1300
Engineering Services, 103 LaudCF 5-1595
  Equipment Repair and Warranties 5-1595
Faculty Resource Center (for appointment) 5-1300
Gopher Hotel (server set up for a fee) 5-2303
Kodak Printer Service 6-1661
St. Paul Computing Services, 50 CofH...................4-7788
  Accounts: VM1 (IBM/CMS) 4-7788
  Tape Librarian 4-3482
  Statistics Services 4-6235
Software Services (contract programming)..............5-2303
Supercomputer Center Help, 3030 SCC 6-0808
Telecommunications, 30 TelecomB
  Networking Services Information 6-7800
  Networking Services Repair 5-0006
Training, Course Registration, 190 ShepLab 5-1300
U Libraries, Integrated Information Center..............4-2020
University Networking Services, 130 Lind 5-8888

Associate Vice President and
Associate Provost Academic Affairs
  Donald R. Riley, Professor............................. 626-9816

Access Information

SLIP: 2400/14,400——————————— 626-1920
SLIP: ADI-100 and ITE (with MKO) ——————— 3-0291

☎ Terminal settings for these systems are 8-1-N (8 data bits, 1 stop bit, no parity) unless otherwise noted. The number you dial may depend on the modem's bps or baud rate.

✍ Internet addresses.
□ Dial-in Server: 626-0300, -1200, -2400, -4800, -9600
□ At 9600 Telecomm supports V.32 and MNP level 5 error correction.
□ On campus ADI-100 and ITE setups use 626-2400.

LUMINA: 300/1200/2400 .... 625-6009 ☎
  V.32 ....4-7539 ☎
  Telnet & tn3270 ____ PUBINFO.AIS.UMN.EDU ✍
E-mail and Internet Service and Servers, Twin Cities
  ————————————— GOLD.TC.UMN.EDU ✍
  ————————————— MAROON.TC.UMN.EDU ✍
Gopher, alternate access (log in as gopher)
  300, 1200, 2400, 9600 .... see Dial-in Server ☎
  ————— CONSULTANT.MICRO.UMN.EDU ✍
Consulting via E-mail: low priority Central System ques
  Format ___ CONSULT@MACHINE.NAME.UMN.EDU
AIS SecureID V.32 ....626-1061 ☎
  300/1200/2400 .... 6-7770 ☎
  tn3270 & Telnet _____ ADMIN.AIS.UMN.EDU ✍
EPX, NVE (includes MEDLINE), UZ, VX, VZ
  300, 1200, 2400, 9600 .... see Dial-in Server ☎
  EPX or UZ or VX or VZ or NVE.CIS.UMN.EDU ✍
EPX, NVE: 300/1200/2400 .... 625-1445 ☎
  up to 19.2 campus data phone ....3-2400 ☎
VM1 (IBM/CMS) at 7-1-even
  9600 .... 624-3668 ☎
  1200/2400 & <19.2 campus data phone ..4-4220 ☎
  ————————————— VM1.SPCS.UMN.EDU ✍

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