

Communication Unit:

Demonstrate understanding of basic computer communication concepts and applications.

State two basic functions of computer communications (networks):

Resource sharing.

Printers and other peripherals (scanners, hard drives, removeable drives, etc.)

Processor sharing

Fast or specialized processors.

Distributed processing.

Information sharing.

Messages (email, newsgroups)

Software

List several levels of computer communications (networks):

LAN resource/information sharing.

Music Lab LAN.

University networks.

Intranet's

University

Corporate training

WAN's

Tenet

Corporate training (USAA)

Airline reservations

ATM's

Online services:

AOL

Prodigy

Compuserve

BBS's

The Internet

Describe basic protocols of computer data communication.

ISO

ASCII

Speeds

Handshaking

MIDI

Demonstrate understanding of the Internet.

List common uses.

World Wide Web.

Email.

Remote control.

File transfer.

News groups.

Outline developmental timeline.

ARPANET -1968

Growth of text based Internet - 80's

Adding institutions

email

ftp sites

Archie

gopher organization

Hyper-link organization

Tim Berners-Lee creates World Wide Web - '89

Graphic interface

Marc Andreessen creates Mosaic - '93

Power of browsing technology grows - mid'90's

New versions add features

More plugins and helper programs

No changes yet implemented in fundamental technology

Future

- Current limitations
- Fast Digital lines
- Video and more multimedia

Demonstrate understanding of Important Internet technology concepts.

- Packet switching vs circuit switching.

- Multiline travel.

- Protocols.

- http:
- smtp:
- ftp:
- telnet:
- nntp:

- Modulation

- Communication technologies & speeds

- Ethernet (local)

- T3

- T1

- Split T1

- Cable modem

- ADSL

- ISDN

- 128K max

- 2 channels of 64Kbps

- POTS Modem

- 56Kbps max receiving file, 33Kbps transmitting

- Usually limited by line to 28Kbps or less

- Analog-digital conversion required

List requirements for typical home Internet connection

- Service provider choices.

- Local (Internet Direct, TexasNet, Express-News, etc.)

- Regional (Flashnet)

- National (Interland,)

- Online service (AOL)

- Hardware requirements.

- Computer.

- Speed

- Memory

- Hard drive

- Modem.

- Speed

- Phone.

- Clean line

- Multi line desirability

- Other Internet technologies to consider

- Web TV

- ISDN

- ADSL

- Satellite

- Cable Modem

- Direct T1 line

- Software requirements.

- Basic:

- TCP/IP stack

- PPP

- Modem driver

- Communication program

- Browser

- Email program

- News group

- Telnet client
- Typical setups for Mac and Windows
- Extensions:
 - Helper Programs
 - Compression/decompression
 - Telnet
- Plug-ins
 - Java or Microsoft equivalent
 - Multimedia plug-ins
 - Shockwave
 - Quicktime
 - Acrobat Reader
 - MetaWeb
 - Astound
 - Live3D
 - VDO Live
 - Real Player
 - Audio
 - RealAudio / RealPlayer
 - Shockwave
 - Liquid Audio
 - MIDI/Music
 - Crescendo
 - MidPlug
 - Beatnik
 - Interactivity
 - CoolTalk
 - Look@Me

- Add-on peripherals
 - Sound card?
 - Printer?
 - Mass storage?

Define common computer communication related terminology.

.hqx	.sea	.zip	Address	AIF
AOL	ASCII file	AU	Bandwidth	Binary file
Bookmark	Browser	Cache	CGI	Client
Cyberspace	DNS	Domain name	Download	Email
Eudora	FAQ	Fetch	Flame	FTP
GIF	Gopher	Home page	Host	HTML
Hypertext	Internet	Internet Explorer	InterNIC	IP address
JPEG	LAN	Link	MID	Mirror
MIME type	Modem	NetscapeNavigator	Packet	PPP
Protocol	Search engine	Server	Socket	Spam
Tag	TCP/IP	Telnet	UNIX	Upload
URL	Wav	Web spider	WWW	

Discuss ways in which the Internet can benefit a musician.

- Collaborate with colleagues.

- Email

- Newsgroups

- Gather information.

- List common search engines

- Yahoo

- Excite

- Webcrawler

- Infoseek

- Lycos

- Alta Vista

- White & Yellow Pages

- Find people

- Find products
- Online magazines & news
 - CNN, ABC, NBC, Express-News, etc.
 - Macworld, etc.
- Visit places in real-time
 - University of Washington
 - Sitecam
- Special interest organizations
 - MENC
 - NAMM
 - UTSA
 - Music education
 - Music technology
- Publicize self or program.
- Take courses
- Chat in real-time
- Surf for entertainment.
- List major Internet sites of interest to musicians.
 - Lipscomb's book.
 - My list.
- Demonstrate ability to use the Internet.
 - Basic skills:
 - Describe important parts of an Internet communication program (Netscape)
 - Menubar
 - Toolbar
 - Back button
 - URL box
 - Directory buttons
 - Window
 - Taskbar
 - Dock/Undock
 - Mail button
 - Surf the web
 - Follow links
 - Access sites and files
 - WWW Locations
 - Local Files
 - Search engines
 - Gopher sites
 - White pages
 - Yellow pages
 - Go (Navigate)
 - Bookmark sites
 - Organize bookmarks
 - Save files as text/source
 - Print files
 - Reload pages
 - View source
 - Configure plug-ins
 - Set options
 - Configure browser
 - Set preferences
 - Type
 - email
 - Maintain environment
 - Clear the cache
 - Download files
 - Decompress downloads
 - Site/page creation.

Productive activities:

- Engage in interactive learning.
- Communicate via email.
- Collaborate with colleagues.
- Gather information via the World Wide Web.

 - Navigate.

 - Hypertext links.

 - Use search engines

 - Save.

 - File.

 - Text.

 - Source

 - Image.

 - Print.

- Aquire resources via the World Wide Web & ftp.

 - MIDI files.

 - Sound files.

 - PD and Shareware software.

- Create Web pages

 - Basic HTML tagging

 - Include Graphics

 - .gif

 - .jpg

 - .png, etc.

 - Include MIDI/Sound

 - .mid

 - .aif

 - .wav

 - .swa

 - .au

 - Basic HTML coding.

 - Image considerations.

 - Web-acceptable formats.

 - Compression issues.

 - Sound considerations.

 - Typical site/page creation software.

 - PageMill

 - FrontPage

 - HomePage

 - Netscape

 - Dreamweaver