Items To learn for All exams. Emphasis is on Important, Practical, & Useful. HOW TO GET A GOOD GRADE: **PUT YOUR NAME SIGN UP EVERY CLASS.** <u>LISTEN, MAKE NOTES, STUDY daily, REVIEW OFTEN</u> **Learn everything in bold in these notes as it will be on tests more than once.   Set time aside daily for study.** This is a college level class. You are <u>expected</u> to spend at least 2 hours in preparation for each hour in class. Learn how to learn. Find what works for you like Flash cards. Learn how to take quick notes. When time is short use abbreviations for subject words. Example if lecture is on computers make a note c=computer. Leave out vowels when time is short. Later rewrite the notes while the lecture is still fresh in your head. To help learn do the following: find causality, connections, importance, use. Think and <u>Ask the 6 learning Questions What, Who, Where, When, How and Why.</u> **Ask is it a fact. Is it the truth?** Don't take anyone's word for it require proof. **Beware of Untruths the world is full of them** that and insufficient fact gathering, thinking and caring are the major causes of deaths & suffering. Use scientific method. Science applied with wisdom has done more for mankind than anything else. **Always do as you would want to be done to.** This is the **best way to get along with people** & **best rule of human relations**. (**AKA The <u>Golden Rule</u>**) also **Bring no harm to another by your actions or your inaction**. You are responsible for treating the equipment and fellow students with respect and care. Treat the equipment as if it were yours because it is (your taxes) No spilllable cups in lab. Copy of all work and notes on two flash drives. (put fone# on them) **Best Insurance is many** good copies in **many** safe places. Please shut off computer and monitor before you leave (required). Clean up any mess. Know where your belongings are. Fire: go out nearest safe exit. There are free tutors available for PowerPoint, Word, Excel. If terrorist around, lock door, keep shut, know our secret knock, no one admitted during lock down, stay out of sight be quiet, fones on silent. If a terrorist enters throw things at him strike him behind knee take him down pile on top of him and get gun away. Keep him down use all force necessary to keep him down. MS Office **not** required on your home PC. Bring pen, paper, set of ear sound buds, small flashlight, two USB flash drives. Do not over rely on computers. Computers fail & get hacked. Flash drives fail. Cloud storage is useful but not always available. Academic discussion is an important part of the college experience. Our graduates are to learn how to think competently, identify problems approach them systematically, explore viable solutions evaluate reasoning, arguments, evidence and communicate competently. We will have just a few minutes of academic discussion at the start of each class in which you may raise any issues of importance. Your **personal security depends on you being informed of what is happening** in the world around you including understanding of multicultural factors and societal significance. So pay attention and learn for your future success. <u>5 part **definition of computer**</u>: Is an **Electronic** device that **Accepts** Data, **Processes** it **by its own program**, Provides **output, Stores** it. Know Parts of computer system: The system unit is the case either a vertical tower, or horizontally oriented desk top unit. Keyboard what you type on. Monitor is screen. <u>Old big **CRT** vacuum tube 150-500 Watts **has** High **Dangerous** voltage </u>even year after being unplugged, & has electro magnetic radiation **EMR. LCD** about 15 Watts no high voltage, runs cooler, **LED** uses even less power & thinner. **<u>OLED</u>** (Organic)uses **even less power** and thinner, is **flexible**. **Pixel** =picture element a dot. **Mouse** is pointing device. **two kinds** mechanical, & **optical** has a light and is **more reliable** easier to clean. Printer quality is measured in dots per inch **dpi**, speed in **ppm** pages per minute. Plotters draw on bigger paper. **Laser** has **cheapest ink** <u>usually better quality & built for high volume</u>, **Ink Jet** sprays, **Thermal** heats paper, **Diesub** melts <u>color may last 100 years</u>. **storage mediums** magnetic is faster but optical is more rugged, **flash chips smaller even more rugged**. **Smallest is MicroSD,** <u>Compact Disk is **optical media**</u> device maximum **capacities: mini 8cm CD 200** Mb mini DVD 1 side1.4GB 1 side 2 layer 2.66GB, 2 side 2.8 GB, **2 side 2 layer 5.2GB is most, fullsize <u>12cm</u>** CD-R or CD-RW 700 MB but **DVD 4.7 GB**, dual layer DVD DL 8.5 GB, blue ray **BD** 25 GB, dual layer **<u>50 GB is most</u>**. <u>FDD</u> Floppy Disk Drive a **magnetic media** storage device capacity 1.44 MB, **SSD solid state drive .5-16T** and **HDD** Hard Disk Drive **magnetic medi**a storage device in system case or external capacity <u>several **TB**</u>. **USB flash drive** a solid state storage device capacity up to **<u>512GB</u>**. This keeps its memory when power is turned off, but have limited life, can fail.   **Blinking** object on screen showing place is a **cursor. USB** Universal Serial Bus socket can automatically quick connect up to **127 devices**. Above is storage is used by programs is usually on disks but **<u>RAM</u>** is on chips is **<u>volatile</u>** memory & ROM nonvolatile memory both used by **CPU**. Desktop is main screen of a **GUI** (Microsoft's **Windows** is Graphical User Interface) operating system containing icons & menus. A student computer should have: at least hard drive over 20G, processor with speed of more than 600 MB/min, at

least 128 MB RAM but 2GB ram or more much better, several USB ports, a network connection and WiFi, and functioning operating system (OS) such as Windows or Linux such as Ubuntu or Mint. Be aware of price deals. Referbs are often bargains found at Micro Center and Silicon Alley Recyclers 10/Ryan (have lowest prices) Keys, which 6 can usually be safely held down? Ctrl, Alt, Shift, Num Lock, Caps Lock, Scroll Lock. Old **command line interface** was **DOS** with cursor. Had to **type** in all commands. Free Linux Operating System on CD or flash drive can be very useful. Sets up on most PCs with or without working Windows in about 4 minutes. Allows surfing of Internet **without fear** of getting virus. **Linux Mint** is one of the easiest to install and run **operating systems**. It comes with the Free equivalent of Microsoft Office (**Open Libre Office)** word processor, spreadsheet, slide show creator and database, plus equivalent of photo shop (**GIMP**), a CD player, a CD and DVD burner, Firefox browser, and access to virus free 40,000 programs & games all free.   **How to avoid repetitive stress injury**? Use rolled up **towel** under wrist. **Fold** keyboard legs, **switch** hands. The mouse wheel is used for **scrolling**. Trackball is like an upside down mouse with ball on top. Upload sent to server on Internet. Download from Internet. **How to avoid** viruses and spy programs (**malware**). Install up to date **anti malware.** Digital computers count digits. **ESD** Electro Static Discharge spark can kill your computer. See class website **easiestlanguage.info** Click $ at top for new Technology, scholarships, job leads, notes and other useful info. What is **Esperanto**? Know about: **RFID**, **mu-chip,** VeriChip, Nanometer, Nanoscience, Nano technology, **QR** code, **NFC**, **WiFi Direct, FireChat** Communication when cell towers are down. **nano** one billionth **milli** one thousandth   **Kilo** = 1000   **Mega =** million 1,000,000,   **MB** megabyte   **Giga** = billion **GB** gigabyte   **Tera** = Trillion   **Peta =** Quadrillion   **Exa =** Quintillion   **Zetta=** sextillion   **Yotta** = septillion **micro** or **mu** = one millionth, micrometer. the millionth part of a meter. As in mu chip. USB OTG on the go allows use of USB on fones. 18k bacteria on keyboard

lowercase b is for **bit** which is a binary digit which is a 1 or 0 or an on or off, or higher/lower voltage the **capitol B is Byte** usually contains 8 bits. **head crash which is** caused by bumping or moving computer. Computer security and privacy both corporate and personal is a big issue now and promising job field. In the US there are new laws but first you need to know the basics. The basic law of our land is the US Constitution which purpose is to establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity. The Bill of Rights is first 10 amendments. **First Amendment** guarantees the freedom **of religion, of speech, of the press, of assembly, and of petition to the government for redress of grievances**. **Second Amendment** The right to bear arms openly, **Third** Amendment freedom from quartering soldiers in a house without owner's consent **Fourth** Amendment protects people against **unreasonable search and seizure**. No searches without warrant or probable cause. And this about privacy. **Fifth** Amendment no person shall be held for "a capital or otherwise infamous crime" without indictment, be twice put in "jeopardy of life or limb" for the same offense, be compelled to testify against himself, or **"be deprived of life, liberty, or property without due process of law**." It also prohibits government from taking private property without "just compensation," **Sixth** Amendment guarantees the right of speedy and public trial by an impartial jury in all criminal proceedings and the right to have legal counsel for the accused and guarantees that the accused may require witnesses to attend the trial and testify in the presence of the accused. It also guarantees the accused a right to know the charges against him. The **Universal Declaration of Human Rights** lists our most important human rights. Please read it. **The American Way of Life** promotes: Life, Liberty, Justice and the pursuit of Happiness for all through individual Responsibility and Integrity. With rule of law under our U.S. Constitution. With each person supporting themselves, family and their community to best of their ability. Promotes: use of scientific knowledge, research and discussion for solving problems rather than violence. Promotes: Love, Kindness, consideration for all with the expectation and code of conduct that No one should bring harm to another by their actions or inaction and Actions should be based on Factual Truth, not hearsay or uneducated opinion from obsolete past?   Ask does it pass the test of Truth based on all of the facts?   Is it how you would want to be treated?   **Humans should be Humane. Apply the test of Truth in all learning. Really? Is it a fact?** Privacy is important, otherwise risk of identity theft, they can get your money, People govt and corporations are collecting info about you, can have wrong info, cost you jobs, or could use against you empty your bank account or run up charges on your credit. Beware of Untruths. Surveillance: employers & Govt, can & do spy on your email, personal calls, Internet usage, banking, credit, locations, your Google searches, Facebook and more. **Programs in Public Domain are called**

Open Source. <u>**Automation Bots and robots will replace 60% of workers in future**</u>. You must prepare for future jobs not just jobs that exist now. There will be competition for good jobs See Did you Know, Future of Work & Humans Need Not Apply on YouTube. collaborative consumption, digital divide, forensics, hardware (physical parts), haptics. See p 14 modern theory of motivation states Autonomy, Mastery and Purpose motivate people. <small>2kitems 2017 Page 4</small>

p15 **Information technology IT** a field of study focused on the management and processing of information and the automatic retrieval of information. Careers in IT are in demand. Many pay very well. P4, 7 <u>**Web 2**</u> features **social networking**. Facebook etc. see p 80 Skype The more you understand technology the more productive and protected you will be and the better chance you will have of getting a good job.

Literacy is knowing how to use Computer Technology that also **includes avoiding hackers & viruses & protecting your privacy**. You should understand the risks. You should know **how to use the web wisely**. 15 **Data mining** searching Big data for pattern, Free books Craigs List and openstaxCollege.org or cheap dealoz.com

7 **Cognitive surplus** time and tools to be creative by numbers of people. Trillion hours of free time to do good

19 <u>**Augmented reality AR**</u> is the addition of digital information directly into your reality

19 **VR virtual reality appears to be real but isn't.** A lot of folks are living in fantasy land.

20 **affective computing**. systems that can recognize and simulate human emotions.

The <u>Language of Computers **binary**</u> to make **programs Bit Binary digit 0 or 1**

<u>**Program**</u> is a step by step set of instructions

Software is made of programs. There are <u>two main kinds: **application software**</u> which does the task for you and <u>**Operating System Software** OS</u> which runs the computer such as Linux, Windows, OS10, Android

<u>31</u> Be able to List **common types of computers**, and discuss their main features. smartphones, watches, tablets, often called mobile computers, laptop or notebook, chromebook, net book, desktop, tower, all of these are called **PCs. Mainframe and Super are very big. Embedded** Self-contained inside devices.

To affect it, you must select it **Ctrl b bold, c copy, p paste, x cut, z undo, n new, I Italic, a select all**

In Excel Ctrl ` shows formulas, AltEnter new line Access Ctrl ' copy cell above

<u>**NFC**</u> Near Field Communication very close proximity p40 receive or send files, fotos, make payments

How they work see 38 & 41 **pixel** smallest dot on screen, RAM p51

WiFi is wireless and faster then Bluetooth is short range radio more p 44

50 **Processing** and Memory are on the Motherboard Central Processing Unit **CPU** is "Brains"

Primary device for permanent storage, Nonvolatile storage devices **Hard Drive HDD lasts longer**

Internal drive or External hard drive HDD or **Solid-state Drive** (**SSD**) is faster

GPU Graphical Processing Unit on video card the more RAM the better video.

54 Portable and Optical Storage Options External hard drives 54 Flash Storage

Optical Storage Options Compact discs (**CDs**) Digital video discs (**DVDs**) **Store more data than CDs** Blu-ray discs (**Bds**) store the most <u>**KNOW Storage capacities**</u> p 55

Ethical Guidelines TIA p53 **Cause no harm** Now there are enforceable laws

Prt Screen Key or Snippit, screenshot 43 Printers 59 ergonomics **3D printing** 64

55Universal serial bus (USB) <u>**USB2**</u> most common In older cs 4 pins hot pluggable UP TO 480 Mbs

USB 3 up to **5 Gbs, New <u>USB 3.1</u>** standard port **<u>10 Gbps</u>** and charges faster will use <u>**USB C reversible plug**</u>Wireless **USB 7 Gps** with 802.11ad (802.11ac wired does **13Gps**)

57 <u>**Thunderbolt 3** 40 Gb/s</u> Transfer speeds up to 20 Gbps

57 Connectivity port gives access to networks and the Internet, Ethernet port

<u>HDMI</u> 1 High Definition Multimedia Interface HDMI 2 allows 4K at 60fpd

What is the Best Insurance? Many good copies in many safe places

What is the best Security? Password it, lock it up

<u>Beware of Untruths and half truths they abound almost everywhere.</u>

<u>**How to get good information? Ask Questions. Get All of the Facts.**</u> <u>Verify from several reliable sources.</u>

Insufficient facts always invite danger.

Seek the Truth. Ask really? <u>Is that actual and factual?</u>

TIA Page 14 ethics needed code of conduct **Silver Rule Don't do to others what you would not want done to yourself. <u>Humans should be Humane.</u>**

<u>Beware. What you do goes around and later comes around.</u> Your actions eventually come back to you.

Nothing is as important as this day and the Love and Life in it

Science gives us accurate knowledge, engineering applies that knowledge into Technology which can give us wonderful tools but applying technology without love, kindness and wisdom is dangerous.

Privacy is almost gone. Do not put any of information into a cell fone, computer, or cloud drive you do not want the world to know. That also includes talking in a car or within range of a microphone or cell fone. Surveillance is all over and business owners, corporations, BB, and foreign operatives are spying on you.

If it is to be it's up to me. When the going gets tough the tough get going

76 Internet world wide network of servers, cable & devices. Has several services such as email and WWW World Wide Web Billions of files. Millions of videos are on youtube.com

78 **Client** (your machine) **Server** computer on other end on Internet. Is a Client Server Network

Internet Protocol (IP) Address 123.45.244.89   **URL = name like yahoo.com** Uniform Resource Locator

93 parts of URL http:// is Protocol, nytimes is domain name, .com is top level domain name, the rest is the path

79, 80 Wiki user collaborative web sites wikipedia.org, wikiversity, wikiquote, wikibooks, wikihow

94 HTTP is the protocol that enables files to be transferred fro the Internet server to the client.

94 FTP File Transfer Protocol allows files of any kind to be transferred between computers.

94 **BitTorrent** is a protocol to transfer files directly from client to client.

82 podcast, RSS.   83 e-mail 2 kinds web based like Gmail or cient from your Internet service provider like Concast.   To make fone calls over Internet needs VoIP 85.

86 E-Commerce   B2C B2B C2C   social commerce uses W2

86 Safeguards **SSL** uses encryption shown by **https://** makes much safer. Use credit card or gift card

90 Cloud drive uses an Internet server for a hard drive Example Google drive, One drive

114 DOS **Command Line** only uses typed in commands. **GUI** Graphical User Interface uses pointer.

124 **Application software** programs that do tasks for users Word, Excel. **Proprietery** (commercial copyright) or **Open Source** (Copyleft few restrictions) usually has a public community of helpers.

160 **System Software runs computer.** Windows, Linux, Unix, Android, IOSD

170 device driver a special program that runs a device such as a printer.

170 PnP plug and play automatically installing of devices such as a USB drive

172 Know the Boot Process. Activate BIOS, POST, find & Load OS, check registry for more configs, user authentication. If does not boot well, reboot or try F8 or Reset this PC in Win10

183 File Explorer. File path. What is seen in Details view? File Name, Date modified, Size, type, path

185 types of file extensions. .txt.doc.docx.jpg.gif.png.xls.xlsx,accdb.pptx,html.zip

186 deleting files, recovering them file compression 192 file history

192 Recover entire system using **System Restore**.

212 Privacy. implanted data chips   216 Censorship 218 Hacktivism

MSCONFIG Allows turning off of unnecessary programs. **IPCONFIG** allows reset of Internet port

How to speed up slow computer: stop all unnecessary programs. Delete all unnecessary programs and files, run fewer programs at one time, add more memory, run Disk Cleanup, run error check, defrag hard drives.

189 Utilites. Disk Cleanup, Error check, Defrag,

189 Task Manager **CtrlAltDel** to start. allows forcing stopping of programs and more

226 Name the **four parts of the machine cycle** Fetch, Decode, execute, store

227 Name **three things that speed up the CP**U faster clock speed, # of cores, more cache memory

Executing more than one instruction at a time is hyperthreading

Which is faster HDD or SSD?   What is the advantage of a solid state Hybird drive. Boots up faster

237 What is **RAID1**? Backs up files on new drive when you save them on your main drive.

247 Name **three things to keep your system more reliable** run up to date anti malware, remove spyware and adware, clear our unnecessary files.

247 **System restor**e can set a restore point and put your system back to a date when it was working

248 If get error code check MS knowledge base at support.microsoft.com or Linux forum

Must see videos about near future jobs Humans need not Appy https://www.youtube.com/watch?v=7Pq-S557XQU

Here is a more detailed one that includes the one above and adds a hour's worth of video examples The Singularity 2016.
https://www.youtube.com/watch?v=kfKa9mPbpP4

260 **Network** collection of computers and other equipment for sharing data and resources, printers
262 **LAN** Local area network which is a network covering a small area
262 **WAN**   Wide Area Network   example the Internet is a Client-Server Network
Intranet Internal private network; sometimes called an enterprise network.
263 **Kinds of networks P2P** Peer to peer just one machine hooked up to another with crossover cable
264 Ethernet protocol that allows PCs to contend for access to the network. 10-100 Mbps or Gigabit
264 **wireless networking** is using electronic waves rather than wires. **WiFi** wireless 802.11 standard radio
waves 150-1000 ft outside WiFi-n 270 Mbps. 802.11ac runs at 5 GHz frequency is better, but coming 802.11ad
aka WiGig is upcoming speeds up to 7Gbs at 60 Ghz frequency also coming 802.11ah low power WiFi for
wireless devices for the Internet of things IoT 268 has dangers not as secure
261 **Bandwidth** the speed of a connection. is measured in bits per second
261 **Throughput** is the actual speed of data transfer that is achieved. Usually in **Mbps** megabits per second.
265 **Transmission media** = radio waves, Micro waves, cable.
Coax coaxial cable consists of a single copper wire surrounded by three layers.
Wired Cable fastest affordable connection for most people. Max run length w 328'
265 **twisted-pair** (TP) cable is the most commonly used networking method. U=unshielded
Cat 6 UTP best to use as is designed for gigabyte connections. But Cat 5 was for 100Mbps.
DSL what is significant about it? probably best price bargain for higher speed
267 network adapter, modem router   NOS network operating system
269 **Broadband** high speed (over 200Kbps) Internet connection usually from following in order of speed
270 **Fiber-optic cable fastest 10-40 Gbps, static free, smaller, more secure, Lighter** Made of glass/plastic
fibers. Data can only travel in one direction. Max run length 62 miles. less interferance but higher cost.
satelite slower and may fail in snow or rain storms.
WiFi from router or **hotspot**: area within range of a WiFi network speeds vary 0-50 Mbits,
Cellular networks **3g 4g** from cell fone networks speed and service varies 3g 0-3Mbps, 4g 0-100 moving, 0-
1Gps still
Dial up 56Kbps not broadband
To Test Internet connection speed at SpeedOf.Me speedtest.net or broadband.gov
286 **Piggybacking** connecting to a wireless network without permission of the owner
286 **How to make a wireless set up more secure?** Disable broadcasting of network SSID, Change the network
name to a name differently from that of the factory name, use new password, turn on security protocols to WPA,
Create a passphrase, Implement media access control so it only accepts to certain computers, Limit the signal
range, apply firmware upgrades.
298 **Binary system** is the only language the machine understands what is it 512 256 128 64 32 16 8 4 2 1
299 **ASCII** The most common 256 8 digit codes used in coding.
Unicode uses 16 bits to represent 96,000 unique symbols. The first 128 characters are same as ASCII
304 Pipelining a technique that allows working on more than one stage of processing at a time
306 parallel processing multiple processing paths in CPUs
Ch 8 p310 digital devices **digital convergence** using 1 device to many things
318 **Bluetooth** short range radio standard using radio waves range 100 Meters 2 Mbits/s
316 **GPS** global positioning system a satellite system for finding location
How to transfer data from fone to computer. Email, USB card, USB cable, syncing to a network.
318 SMS Short Message Service for text messaging up to 160 characters.
MMS Multimedia message may include text, sound and video
Speed of 3G 0-3.8 Mbps on cell fone
WiFi on Cell fone 0-5 Mbps
speed of 4 G 0-13 Mbps on cell fone
320 **Tethering** using a fone to provide a WiFo hotspot
Keep fone number private use tossabledigits.com to set up a virtual fone number
321 Tablets and 2 in 1 has a tablet and physical keyboard
Ultrabooks high end, full featured notebook computers usually thin.

324 creating & publishing a movie 326 Digital publishing 328 Creating Digital Music

NFC Near field communication <u>wireless transfer of date within an inch,</u> use fone to pay bills or get files.

.BMP Bit Mapped Picture a graphics format in which every dot is mapped, very big file

.PNG replaces **JPEG** the most common foto compression method and is better

GIMP program that is a free photoshop replacement

Irfanview a very good free foto viewing program and more

334 digital Video

MIDI <u>interface for musical instruments</u>

podcast is a **MP3** audio file <u>less than 10% of original size</u> or with video **MP4** to make just record, edit export to MP3 RSS is really simple Youtube RSS video

Ch 9Digital Security p 346 **Hacker** one who breaks in to a system, **Cracker** a criminal hacker who may gather info on you to steal your identity to get your money or use your credit. Millions are victims yearly.

350 **Packet sniffer** a computer program that looks at packets as they travel in a network to get your passwords and other information. Use a firewall and encryption to fight them.

Trojan Horse a program that poses as a good program but actually is a hostile virus

Zombie a computer <u>under remote control of a malicious program or hacker</u>

351 **botnet** a large group of<u> programs running autonomously on zombies.</u>

Denial of Service Attack zombies flooding a site with large number of requests which prevents ligitimate users from being able to get service.

Malware the name for <u>all malicious intent programs</u> such as **viruses** that can cause harm.

368 **use Windows Defender** and **install an antivirus software** program such as AVG Free

Get one for your fone also.

353 **virus** a hostile program that attaches itself to another computer program and attempts to spread to other computers. When files are exchanged. Viruses may damage your files, software or computer.

354 Kinds of Viruses Boot Sector, Logic Bombs, Time Bombs, script & Macro, e-mail, polymorphic, multipartite, stealth. See 355

368 Also keep your system updated to fix security flaws.

worm a program that actively self replicates itself without being opened

logic bomb hostile program triggered by logical event such as employee fired or opening file # of times

time bomb a hostile program that is triggered by a time Michaelangelo

adware is software that secretly spys on you & collects info for advertising purposes

spyware software allowing malicious monitoring or control of your computer

boot-sector virus replicates itself into a master boot record.

Script viruses hidden in form of scripts

macro viruses attaches itself to a document that uses macros

email virus Like Melissa uses the address book to distribute the virus.

Encryption virus encrypts our files making them useless to you and demands money to fix.

Polymorphic virus changes its own code to avoid detection

Use a firewall, don't store sensitive data on HDD or don't use that machine on network or Internet.

bot an automated program. Some now use AI artificial intelligence to mimic human intelligence. <u>Corporations are paying software engineers to make bots to replace thousands of human workers.</u>

Can Linux help? Yes you can surf the Web without fear of viruses or spyware see pendrivelinux.com

Countries and organizations do sponsor hackers to steal information this is called espionage. It is happening big time right now. Our country has lost much information to China and others in this way.

358 **Cookies** little files placed on your computer by websites. They are harmless and sometimes useful.

s**pam =** junk email How to reduce spam delete unknown emails, do not subscribe to offers, do not give them permission to send you offers or pass on anything to you.. Use an e-mail forwarding service that will screen your e-mails like versaforward.com or Sneakermail.com

360 **phishing** <u>scam involving spoofed email</u> and websites to acquire your personal information

pharming scam of hijacking web sites to steal personal information

361 Scareware is malware that tries to get you to go to a website or pay them money to fix a problem.

364 Test your security go to grc.com and select ShieldsUP!

366 **firewall** is <u>hardware and or software to stop unsafe traffic in and out of your computer</u>

371 **What makes a better password**? longer with numbers no common words. <u>Saying letters wysiwyg</u>

373 **biometric identifier uses** face recognition, voice, finger, retina, hand recognition. <u>Cameras</u> are being placed all over. If a face scanner is hooked up to it it can scan hundreds of faces an hour and pass identity info on to whoever is running it. You will soon be video taped in public places. This would be great for catching wanted individuals, dissidents or protesters the government doesn't like. See the movie Enemy of the State. Cameras and listen devices are now so small they can easily be hidden almost anywhere. YOU <u>MUST must read 1984</u> by George Orwell. If you don't have time read a summary of it.

 key logger a program that records your keystrokes often to obtain your passwords

EULA User License Agreement you <u>agree to by using softwar</u>e

382 **surge protector** is an electronic device that renders surges harmless

UPS uninterruptible power supply has a <u>battery protects from power surges, low voltages and outages</u>

Encryption <u>making data unreadable except to intended recipien</u>t.   Why is Encryption important? It stops others from seeing your information. But government can break it. Privacy is almost dead.

How to protect your privacy: don't give out your date of birth, social security number address phone and other correct personal information. Use an email without your name. Also make up a phony one with a different year and month and day and continually use that one. Use a phony name and address and keep using that. Make sure that it is to a vacant lot or property. Make up a phony set of data. phone number address. Look up your deceased relative on the Social Security Death Index and give out that social security number. If someone who is not entitled wants your social security number give then that one. No one is entitled to your social security number except You, IRS, your bank, your employer. No one else. Just give them the dead one. These numbers are not reused and raise a D (deceased) flag causing those who try to use it for credit cards to be caught. Same with drivers license number. Offer then some other photo ID. This often works. Tell then you lost it, or if they insist tell them you will just take your business elsewhere.

375 **How To keep your information private** on shared computers <u>use **Linux Mint** OS</u> from a flash drive or DVD. Mac users can use Linux Luna for a close approximation of OS X.

If you regularly send sensitive information you can buy software to create a VPN Virtual Private Network. Uses the public Internet to build a secure, private network among various locations. Uses tunneling data packets placed inside other data packets encrypted. Providers are PRIVATE Internte Sccess and Nord VPV

374 ironkey Personal Flash Drives from ironkey.com allow you to save sensitive files which can be encryped and passworded.

374 Use privacy tools and private browsing feature of browsers

373 <u>Use a password to sign in to your computer.</u> It stops others from using it. And<u> password sensitive files.</u>

To have more privacy use PGP Pretty Good Privacy from download.com also hushmail.com and comodo.com have encrypted mail

information privacy The right to keep your personal information private.

 electronic profiles   Information about you used by organizations to sell you things.

378 Privacy on social networks and backups   380 Image backups

Instant messaging is ripe for viruses especially if used on public computers.

piracy   illegal copying & distribution of digital intellectual property

forensics looking for evidence of illegal activities in equipment.

war driving cruising neighborhoods looking for open WiFi networks

372 **CAPTCHA** <u>completely automated public turing test to tell computers and humans apart.</u> P 352

396 see Careers in IT

CAD computer aided design used by engineers and designers

TCP/IP Communications protocol used to define packet switching on the internet.

Packet is an organized collection of data that is transmitted over a network .

WIMAX 802.16 next generation wireless broadband which is faster than WiFi and has 31 mile range

ViFi vehicle WiFi allows a moving device to connect to more than one access point at the same time

OSI Model see book for details.   Network adapters Switches, Bridges, Routers
MAC addresses media access control address for Network security, Authentication, access privileges
It is <u>a very long 48-512 bit unique address</u> which is a unique identifier assigned to network interfaces.
Users connect to an ISP thru a POP point of presence. Could be bank of routers, modems, servers. Most done on client/server model but BitTorrent uses peer-to-peer
TCP/IP is the main suite of protocols Transmission Control Protocol and Internet Protocol
DNS domain name server stores the ip addresses of each top level domain
HTTP is the protocol used by a browser to transfer documents across the internet.
SSL secure socket layer and **TLS** are network security protocols
HTML and XHTML are scripting languages to mark up text for use as a web page
XML extensible mark up scripting language describes the content in terms of what data is being described rather than how it is to be displayed.
CGI common gateway interface provides a methodology by which your browser can request that a program file be executed instead of just being delivered to the browser. CGI scripts are placed in a directory called cgi-bin. This holds scripts to be run by the server. Called a server-side-program.
Dynamic HTML is used to create web pages that change after being loaded.
JavaScript is the most commonly used scripting language for creating DHTML effects.
WIMAX faster WiFi with microwave access. Range 31 miles speed of up to 72Mbps faster than DSL
IR Port that transmits data from wireless devices using infrared light waves
W3 Evolving extension of WWW in which info is defined to make it more easily readable by computers
CMOS chip where the computer settings are held
MicroSD <u>smallest flash memory form available</u>
POS Point of Sale   terminal such as a store <u>checkout</u>
RAM   readable writable memory used by the CPU
Design In what view do you modify Access queries
NPEMDAS <u>order of operations in spreadsheets</u>
$ icon <u>How to set LEFT ALIGNED CURRENCY</u> in Excel
currency format How to set RIGHT ALIGNED CURRENCY in Excel
Double click top right sizing handle <u>How to autofit column</u> width USING MOUSE in Excel
Alphanumeric counts names What does **COUNTA** do that COUNT does not
use Ctrl <u>To print noncontiguous ranges</u> use _____in Excel
<u>select range look at bottom of screen</u>   To use **autocalculate** do this in Excel
$ or F4 <u>Absolute</u> references are made by
What is **best insurance?** Many good copies in many safe places
What is **the best Security?** Password it, lock it up
Humans should be Humane and bring no harm to another by their actions or inaction.
A needed code of conduct Golden Rule
Best Universal Ethics Bring no Harm (by actions or inaction)
Beware of Untruths and Partial Truths they abound almost everywhere.
<u>How to get good information? Ask Questions. Ask the right questions. Get All of the Facts. Verify from several reliable sources. Insufficient facts always invite danger.</u>
Seek the Truth. Ask really? Is that actual and factual? Or is it obsolete or hearsay?
We are often given outdated info, fabricated untruths and obsolete wrong information because others want us to follow their agenda usually to please them.

Six learning friends What, Who, When, Where, How, Why. **Seek the Truth.**
Nothing is as important as this day and the Love and Life in it. **Protect both.**
Do The Most Good For All. The greatest good for the greatest Number.
The needs of the many outweigh the needs of the few.
To affect it, you must select it.   If it is to be it's up to me.