

Lecture 1
Jargon
Hardware

ASCII	American Standard Code for Information Interchange. An encoding scheme by which characters are represented by numbers. For example, 'A' is represented in decimal as 65. 7-bit ASCII supports 128 different characters; extended ASCII supports 256.
bank	A slot into which RAM is inserted.
base-10	A system for representing numbers with sequences of digits, each of which can take on one of ten possible values (0 through 9).
base-2	A system for representing numbers with sequences of digits, each of which can take on one of two possible values (0 or 1).
binary	See base-2.
BIOS	Basic Input Output System. Software burned into ROM that enables a computer to bootstrap itself. Passes control of computer to an operating system after checking RAM, etc. Handles low-level communication with drives, keyboard, printer, etc.
bit	A 0 or 1.
bus	A pathway for data.
byte	Eight bits.
CMOS	Refers to hardware that stores BIOS settings (<i>e.g.</i> , date, time, boot sequence, etc.).
computation	Calculation (<i>i.e.</i> , determination by mathematical means).

computer	Something that calculates (produces output from input via mathematical means).
connector	Something that attaches to something else.
cookie	Floppy, circular material inside of a floppy disk.
CPU	Central Processing Unit. The brains of a computer. Speed measured in megahertz.
daughterboard	A logic board that plugs into a motherboard.
decimal	See base-10.
DIMM	Dual Inline Memory Module. Type of RAM found in newer computers. Has 168 pins.
flash	To flash a computer's BIOS is to upgrade it with manufacture-provided software.
game port	Serial port on the back of a PC into which a joystick or the like can be plugged.
giga-	A prefix denoting billion.
hardware	Computer equipment.
kilo-	A prefix denoting thousand.
L1 cache	Very fast memory usually found "on die" (inside of a CPU). Found in such quantities as 16 KB, 32 KB, etc. Enables CPU to retrieve instructions quickly, avoiding relatively slower RAM.
L2 cache	Pretty fast memory sometimes found "on die" (inside of a CPU), else in the CPU's packaging or on the motherboard.
level-1 cache	See L1 cache.
level-2 cache	See L2 cache.
logic board	A plastic (and often green) board with circuits, chips, and other hardware.
mega-	A prefix denoting million.

motherboard	Main logic board of a computer. “Central artery system” through which almost all hardware communicates.
non-volatile memory	Electronic storage that doesn’t require power for preservation.
parallel port	Port on the back of a PC through which bits travel in parallel (8 at a time). Often used to connect printers. (Before USB, scanners, Zip drives, and more were often connected via the parallel port.)
port	A connector on the back of a computer.
POST	Power-On Self-Test. Sequence of steps performed by a BIOS upon startup (memory check, keyboard check, etc.).
processor	See CPU.
RAM	Random Access Memory.
RIMM	Rambus Inline Memory Module. Type of RAM found in newer computers. Smaller than DIMMs. Can be installed singly.
ROM	Read Only Memory. Type of memory found on a computer’s motherboard that stores the BIOS. Can be “flashed” with updates.
secondary storage	Non-volatile, writable storage like hard disks, floppy disks, CD-Rs, etc.
serial port	Port on the back of a PC through which bits travel serially (one at a time). Used to connect mice and modems on older computers.
SIMM	Single Inline Memory Module. Type of RAM found in older computers. Oldest version had 30 pins; newer (but now old) version had 72. Has to be installed in pairs.
slot	Fairly long, narrow connector found on some motherboards for CPUs.
socket	Connector found on some motherboards for CPUs. Usually a square containing many, tiny holes for CPU’s pins.
system bus	Main pathway on a motherboard along which data travels.
tera-	A prefix denoting trillion.

USB	Universal Serial Bus. Relatively new, fast bus to which peripherals (digital cameras, printers, keyboards, mice, etc.) can be connected.
virtual memory	Hard disk space used as though it were RAM.
volatile memory	Electronic storage that requires power for preservation