

# COMT 11009 – Computer Assembly and Configuration

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## Lab Projects:

### *Determining Hardware and OS Version and Service Pack Level:*

- System Properties print screen
- MsInfo32.exe – System Information print screen
- Speccy Tool – Summary print screen (Download Portable version.)

### *Determining CPU and Memory:*

- CPU-Z – CPU tab print screen (Download both 32-bit and 64-bit zip file versions.)
- CPU-Z –SPD tab print screen (Documenting your current memory.)
- Printout of your computers possible memory upgrades. (Go to [www.crucial.com](http://www.crucial.com) then download and run the “CrucialScan.exe” {system scanner} program. Print screen the results. OR go to [www.newegg.com](http://www.newegg.com) and drill through their memory configurator. Print screen the results. Or go to [www.kingston.com](http://www.kingston.com) and drill through their memory configurator. {Note: You need to know your motherboard’s manufacturer and model for sites other that Crucial’s.})

### *Testing RAM:*

- MemTest86+ CD-R or USB. Documentation worksheet. (Extra Credit: for MemTest86 on a bootable USB flash drive.)

### *Benchmarking Memory and Virtual Memory (PageFile.sys):*

- Extra Credit: Install and print screen Free Meter from <http://www.tiler.com/freemeter/>

### *Microprocessors:*

- 2013 FEB - Microprocessor Compared Worksheet (See S:\BOLEN\COMT11009\_A+\ location of mapped school S: {student} drive.)

### *Removal / Installation of Hardware:*

- In an in class lab, we will remove all parts (excluding the CPU/Cooler assembly from the motherboard) and disconnect all cables. Then, reassembly unit and confirm via Device Manager that all components are working correctly. (Remember Electrostatic Discharge (ESD) safety procedures!)

### ***Power Supply Unit:***

- Print output of the Power Supply Unit Configurator results.
- In class lab, using a multimeter to test the Power Supply Unit.

### ***Cooling:***

- Extra Credit: Install and print screen SpeedFan from <http://www.almico.com/speedfan.php>

### ***Network Interface Card:***

- Create a crossover Cat5 cable.

### ***Software / Files / Performance & Security:***

- Secunia PSI – Examine to see if software is up to date.
- CCleaner – Clean out old files from system.
- EaseUS Backup (Extra Credit) – Backup unit before changing unit or to recover unit.

### ***Printers:***

- Printer installation and test via IP port.

### ***Other OS's:***

- Install Ubuntu into VMware environment.