

Empire State College Standard Desktop PC Specifications

The following are the standard hardware specifications for Empire State College desktop computer systems. All desktop units purchased by the college are purchased with these specifications unless otherwise ordered. Also included is a brief explanation of the meanings of these specifications for the main components of the PC.

Base Unit: OptiPlex 9010 Minitower EPA (225-2584)

Processor: 3rd Gen Intel Core i5-3470 Processor (6MB, 3.2GHz) w/HD2500 Graphics

Memory (RAM): 8GB, NON-ECC, 1600MHZ DDR3, 2DIMM

Video Card: 1GB AMD RADEON HD 7470 w/VGA and DVI Adapters

Monitor: Dell Professional P1913 Widescreen, 19in Viewable Image Size, VGA/ DVI, OptiPlex

Hard Drive: 250GB 3.5 6.0Gb/s SATA with 8MB DataBurst Cache

Operating System: Windows 7 Home Premium, No Media, 64-bit

Mouse: Dell MS111 USB Optical Mouse

NIC (Network Interface Card): Dell Wireless 380 Bluetooth 4.0 LE Module

CD-ROM or DVD-ROM Drive: 16X DVD+/-RW SATA, Data Only

Base Unit: OptiPlex 9010 Minitower EPA (225-2584)

-This is the standard issue computer, purchased from Dell, upon which are subsequent specifications/modifications are based.

Processor: 3rd Gen Intel Core i5-3470 Processor (6MB, 3.2GHz) w/HD2500 Graphics

-The system's processor (CPU), responsible for almost all of the computations your system performs. A faster processing speed (higher gigahertz) increases the speed at which the system can perform calculations (i.e. Run programs). A processor with multiple cores can also divide calculations among its cores, also generally leading to an increase in processing speed.

Memory (RAM): 8GB, NON-ECC, 1600MHZ DDR3, 2DIMM

-Ram (Random Access Memory) is the "working memory" of your computer. Any program that is running on your system is loaded into the RAM, because it is much faster to read data from the RAM than from the hard drive. The more RAM your computer has, the more data can be loaded there, which effectively speeds up your computer's performance.

Video Card: 1GB AMD RADEON HD 7470 w/VGA and DVI Adapters

-The video card (also called the GPU) is a specially adapted processor, similar to the CPU, that assists the CPU rendering both 2D and 3D images. A better video card allows for

faster image rendering speeds and also dictates what level of detail (resolution) your system is capable of handling.

Monitor: Dell Professional P1913 Widescreen, 19in Viewable Image Size, VGA/ DVI, OptiPlex

-The system's monitor (the screen). This is a flat screen monitor, 19 inches from corner to corner diagonally.

Hard Drive: 250GB 3.5 6.0Gb/s SATA with 8MB DataBurst Cache

-The hard drive (HDD, also called the Hard Disk) stores the bulk of information that is saved to your system, including all files and programs. This particular hard drive is capable of storing up to 320 Gigabytes of Data. A higher RPM speed results in an HDD that is able to load data from memory faster. Solid State Drives (SSD) are another type of hard drive that utilizes a different method of data storage/retrieval. SSD's are generally faster but much more expensive and are unable to store as much information as a basic HDD. This system does not have an SSD.

Operating System: Windows 7 Professional, 64-bit, with media

-The operating system (OS) is software (a program) which communicates with the system's hardware (the physical parts of the computer) and allows other programs to run. This is the "User Interface" that dictates the layout of your system and how you interact with it. The OS also determines what programs your machine will be able to run – if a program isn't designed to work with your operating system you will be unable to run it.

Mouse: Dell MS111 USB Optical Mouse

-The mouse that is purchased with these systems. It is an optical mouse, meaning that it works by bouncing light off of a surface to detect movement. These are generally more accurate and easier to care for than the older "ball" styled mice, but they do not work on overly rough or reflective surfaces.

NIC (Network Interface Card): Dell Wireless 380 Bluetooth 4.0 LE Module

-This card physically makes the connection between the computer and the network cable.

CD-ROM or DVD-ROM Drive: 16X DVD+/-RW SATA, Data Only

-The DVD-ROM Drive is the hardware that is responsible for reading and writing external data to or from CD's or DVD's. A DVD with a faster write speed (16X in this case) is capable of burning (copying data) onto a disc at a faster rate. DVD-ROMS are generally capable of reading and writing both DVD's and CD's (as is the case for this drive) whereas a CD-ROM is capable of only reading and (maybe) writing to CD's. Not all disc drives are capable of writing to CD's/DVD's- some can only read the data from them.