Camera Specifications

We are basically at the mercy of the digital camera manufacturing industry, in terms of what is available year to year. The recent trend in the lower priced cameras ($200 and below) is to automate as much as possible and put in larger CCD megapixel features. Therefore I am trying make these guidelines as informative and flexible as possible.
There are really only four important parts to a digital camera. The lens, the aperture, the CCD (charged coupling device) and the computer chip that process the raw data from the CCD. The shutterspeed is also important although it is electronic in a digital camera.

What to look for:

Resolution – 3 mega pixels or more

Image File Formats –All cameras save in various qualities of JPEG formats. Some more expensive cameras ($300 and up) can also save in TIFF and RAW formats. The JPEG format is a compressed or lossy format. Which means that a certain amount of information from the initial image is removed to make the image file size smaller. Thus quality is reduced to some degree. TIFF and RAW formats are not compressed, and therefore are much larger and higher quality files. JPEG files are acceptable for this course, but if your looking for and can afford a camera that can take you to the next level you will need TIFF or RAW formats.

***Shutter Speed*** – Best if it has a priority setting. Allows you to stop movement, good for photographing sports, a slow shutter speed allows you to take pictures in darker locations (with a tripod). If priority setting is not available in your price range look for a camera with Sports mode. This at least will give you a fast shutter speed mode. The priority shutter speed is generally indicated as Tv mode.
***Aperture Range*** – Best if it has a priority setting, or adjustable steps. Good for controlling depth of field or focus depth creating blurred backgrounds. If priority setting is not available in your price range look for a camara with a Portrait mode setting. This can substitute to narrow the depth of field and create softened or blurred backgrounds. Aperture priority is indicated as Av mode.

***White Balance Modes*** – Best if it has complete manual or preset overrides, it is OK if it has a group of modes which should include; daylight, overcast/ cloudy, tungsten and one or more fluorescent settings. Very import for studio/product shooting.
***Exposure*** – Best if it has adjustable exposure settings. This is a very import feature allowing you to cope with and adjust the auto-exposure of most digital cameras. The auto-exposure of a digital camera generally seeks to create a balanced image and will set the exposure on the overall reading in the frame, trying to keep the highlights from overexposing. A lot of the time this will leave your subject in the dark. The exposure compensation feature allows you to correct this. The more accurate your subject is exposed in the initial shot, the better your final result will be. Allows more or less light to hit the CCD array.

***Flash*** –Should at least have a built-in flash that can be forced turned on or off. For the next step up looks for a camera with a flash shoe for external flash units.

***Display*** – The camera should have both a viewfinder and a LCD display. You should be able to turn the LCD off to extend battery life.

***System Requirements*** – should be both Windows and Macintosh compatible. We use Macintosh computers at school, make sure your camera is Mac compatible.

***Battery Type*** – your choice, rechargeable last longer, but if you get caught with the battery dead, your dead. AA batteries do not last as long, but are easy to replace. New model cameras tend to have rechargeable.

Larger more expensive camera tend to take better larger images, but are bulky to carry around. Small camera are quicker and easier to take “snaps” of things, but are more difficult to hold steady when shooting.