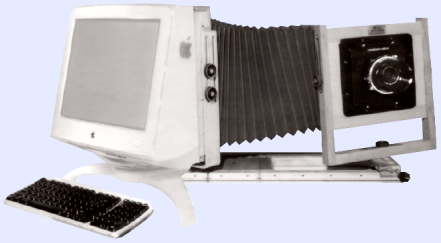
Ferguson Photography & Design



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DIGITAL PHOTOGRAPHY INTRO
CONEJO VALLEY ADULT SCHOOL
WEEK 1 of 4

Course Outline:

Instructor: Tom Ferguson

Week #1: Parts of your camera and what makes your cameras different, choosing the right camera, camera control basics, downloading images to computer, home printer choices & pay for print choices, image software choices, image sizing.

Week #2: "A" mode and "S" mode (Av and Tv on Canon), scene modes, art & snapshot, composition, autofocus and focus modes (continuous, single, manual), imaging software (cropping and levels).

Week #3: Flash, white balance, metering modes (multi, center, spot), imaging software (resizing images for email, color correction), computer color management.

Week #4: Lens/Zoom length & perspective, imaging software (sharpening, filters, black and white), printer color management.

Homework Assignments:

Week 1, 2 and 3 will each have a homework assignment. You will need to shoot the assignment and bring from 2 to 5 finished prints to class. The prints can be any size from 4x6 inches to 8x10 inches. Please limit your subject matter to "G or PG" rated images. They will be shared with the class.

Camera and Manual

Please bring both your camera **and its manual** to class each week. If you do not yet own a camera, you may want to wait until after the first class to buy one.

Resources:

DPreview (Tom's favorite camera review & info site) http://www.dpreview.com/
DPreview Forums (great peer to peer help) http://forums.dpreview.com/forums/
Samy's Camera (Retail store with LOTS of gear to touch and try):
431 S Fairfax Ave, LA, CA 90036 Between Wilshire and 3rd Street (323) 938-2420
1759 E. Colorado Blvd, Pasadena, CA (626) 796-3300
Hooper Camera 616 E Thousand Oaks Blvd, Thousand Oaks, CA 91360 (805) 494-3080
Tom's website (class notes with expanded example images) http://www.ferguson-photo-design.com/

Week #1 Intro & Choices & Downloading:

Parts of your camera. A lot of intro level information:

Lens/zoom length and f/stop

Shorter lengths (30mm) are good for small rooms and large groups of people.
Larger lengths (200mm) are good for distant subjects and sports.
Smaller f/stop numbers (f/2.8) are good for shooting in dim light and sports.
F/stops (aperture) are how wide a lens opens, how much light it can let in.
Equivalent lengths for point and shoots: example: actual lens is 6.3 – 25.2mm, advertised as 28-112mm.

1/2 is larger than 1/22

Resolution

Megapixels (dots) and resolution

96 dpi (dots per inch) for web and email viewing

240 -300 dpi for typical inkjet printing

A file from a 5 megapixel camera is:

29x19.5 inches on the web (96dpi)

11.6x7.8 inches on an inkjet or photo printer (240 dpi)

A file from a 10 megapixel camera is:

41x28 inches on the web (96dpi)

16.5x11 inches on an inkjet or photo printer (240 dpi)

By using the camera's menu you can set different resolutions, large are best.

Memory cards

Replacement for film

Reusable for 10s of thousands of times

Variety of sizes / types, must be matched to your camera body.

Concept Of Exposure

A shutter is like a door, it opens to let light in for various lengths of time.

Your camera (or you) has to balance the f/stop (how much light the lens lets in) and the shutter speed (how long the camera lets light in) to get a good (not too bright or too dark) exposure.

Camera shooting modes

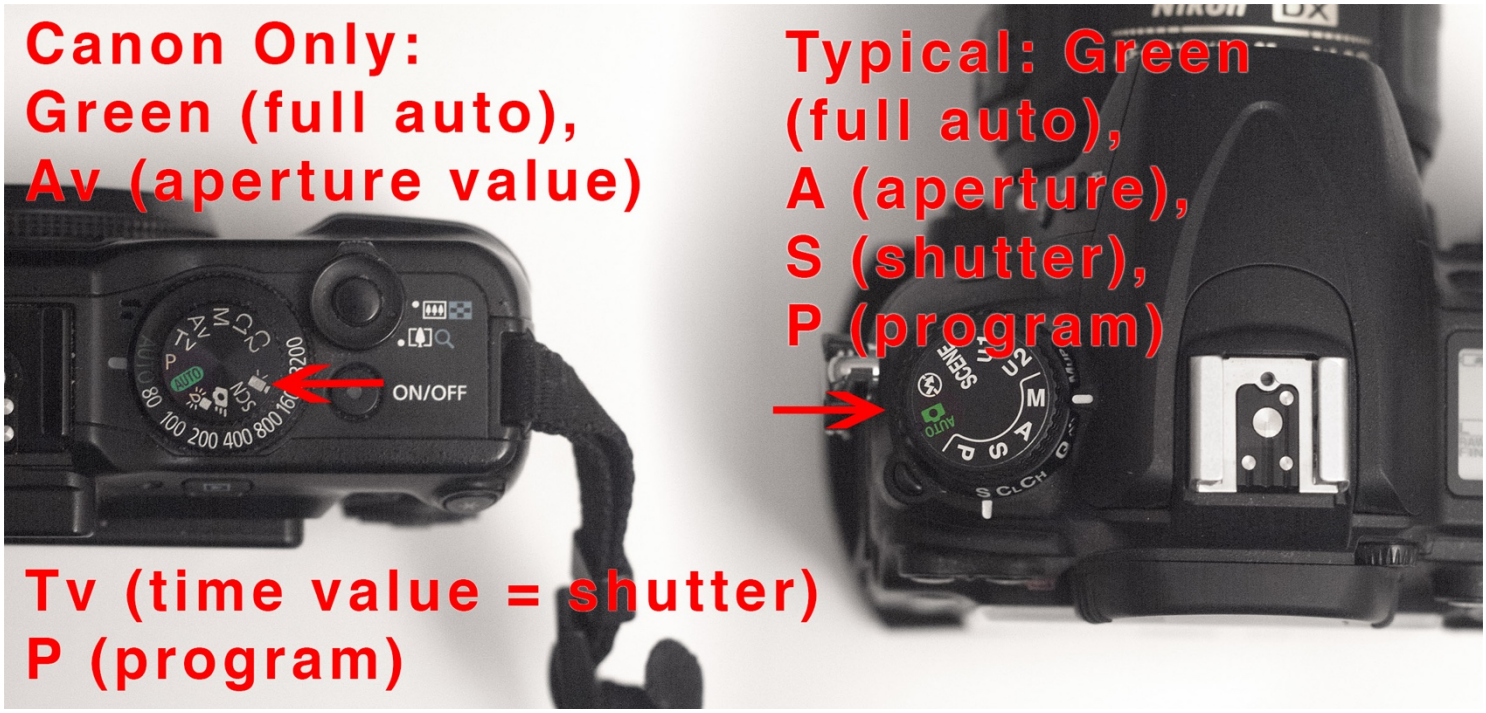
Program (all cameras have): The “I don’t want to think” mode.

Auto modes (almost all cameras have)

Better than “Program”. Typically named after its use (sports, night, portrait). Typically: Sports/Portrait/Kid stops fast motion, landscape allows motion and gives great depth of focus.

Shutter priority (S mode). User control for when speed is most important (sports). More info during week #2.

Manual mode (M mode). Complete user control, important for studio or external flash use. More info during week #4.



Camera size

Typically larger cameras have more control, but you can’t take a picture if a camera is so heavy you choose to leave it behind! Try a camera “in hand” before buying (see Samy’s Camera listed above).

File Formats

JPEG (pronounced ˌjā'pĕgˈ , aka Jpg) is available from all cameras. Small files are fast to write and load. Many images fit on a memory card. Degrades if resaved repeatedly.

Original

Too Many Jpg saves

RAW is typically available on better prosumer and pro cameras. It is better and smaller than Tiff (faster than Tiff, but slower than Jpg). Each camera company (and sometimes each camera from a give company) has it own proprietary format. So, you must make sure your image editing software can read your camera's version of RAW.

Most cameras can alter (lower) file size, as an example you may have the option to shoot a 5 megapixel image with a 10 megapixel camera (selectable from the menu of your camera.).

Flash Auto, Forced On, Forced Off

Many times you want to control your flash. Perhaps you are in a situation where flash is “not allowed”.

ISO speed

Replaces “film speed”.

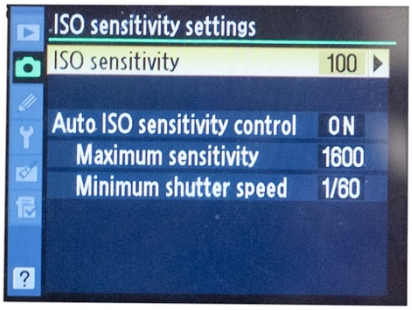
Lower numbers (100 or 200) need more light or more flash, but give sharp clear images. Best for outdoor / sunlight images or indoor images with a powerful strobe.

Higher numbers (800 and above) need far less light, but give less clear images (noisy) and muted colors. Good for night shooting, indoor shooting with low or typical powers strobes or indoor shooting with distant subjects (sports, theater).

Selectable from the menu of your camera.

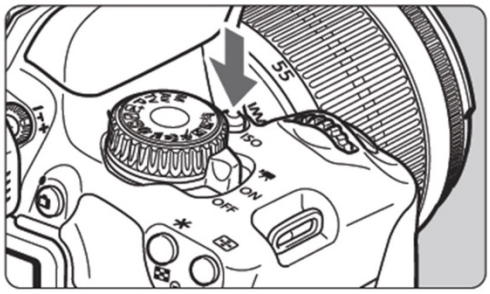
Low ISO

Very High ISO



Nikon
First screen in shooting → **Second Screen**

Canon



1 Press the <ISO> button. (⏱6)

▶ **[ISO speed]** will appear.

2 Set the ISO speed.

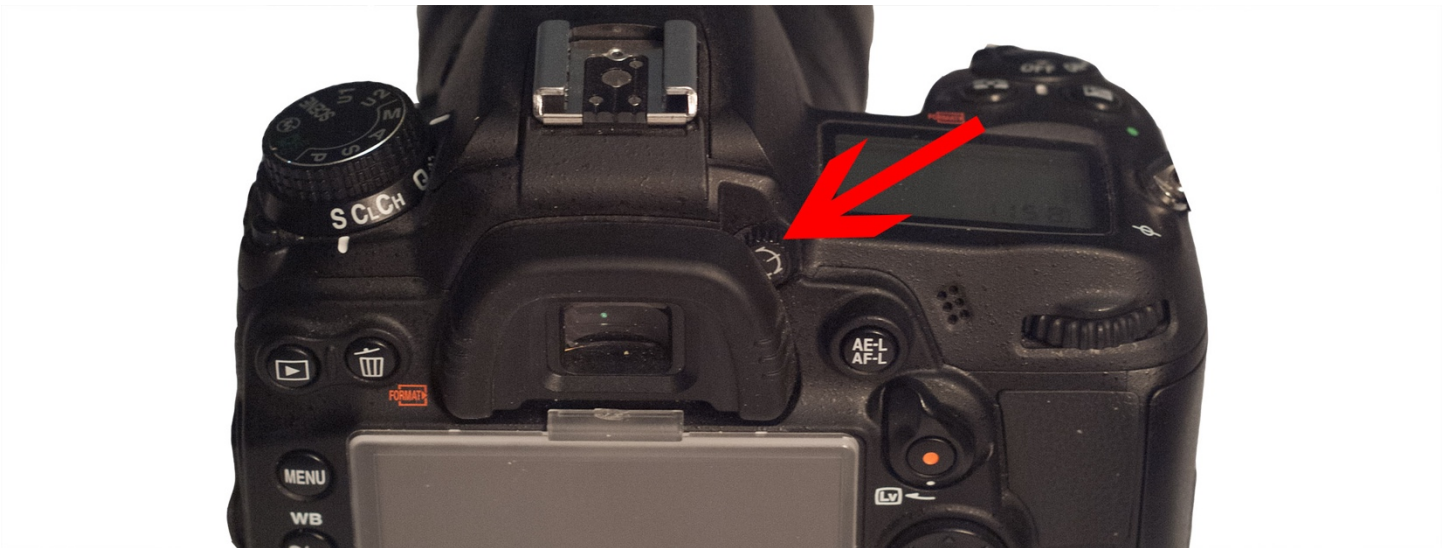
- Press the <◀▶> key or turn the <⚙> dial to select the desired ISO speed, then press <(SET)>.
- You can also set the ISO speed in the viewfinder while turning the <⚙> dial.
- With **[AUTO]** selected, the ISO speed will be set automatically

Diopter Adjustment

Thumb wheel typically near optical viewfinder

Not found on point and shoots or LSD only cameras

Adjust for info LED sharpness, not image sharpness



Downloading (Getting the images from camera to computer)

It is easy and common to get multiple programs trying to do the same job.

Direct connection from camera to computer: Direct is easy to use, but slow and limited. Camera connectors may break with heavy use.

Card readers. These are faster, safer and more flexible.

Erase (or reformat) memory card after transfer is confirmed. Best if erased (or reformatted) in camera rather than in computer.

Image editing software part 1 (choosing and rotating)

Photoshop Elements 2020 will be use in this class. This is a great program for consumers. Reasonably priced at about $90.

Other options: full version of Photoshop (flexible, but expensive), the software often supplied free with your camera (varies from good to terrible), Gimp open source project, Microsoft Picture It (Windows only) , ACDSee (Windows only), IrfanView (Windows only), Graphic Converter (Mac Only).

Printer Choices

Home inkjet (Epson for example): Dye based ink printers are inexpensive, but non archival. Pigment based ink printers are more expensive, but archival (prints last for generations). Using photo paper drastically improves photographs (compared to normal or copier paper). More info on getting great color with inkjet prints in week 4.

Retail stores (Walmart for example): Acceptable print quality. Will often take direct from camera files and do the resizing for you. May arbitrarily crop and/or adjust your images.

Pro labs supply great prints and great advice. Slower and more expensive then retail stores.
Image Source 805-676-1000 4532 Telephone Rd #106, Ventura
APL 818-347-3949 21831 Sherman Way, Canoga Park

Web based printers. Nice and convenient, but a bit slow for this class. Convert your images to sized inkjet ready Jpgs (240 dpi). You receive prints via USPS in 3 to 5 working days.

HOMEWORK (1 print):

1) *Know where your menu controls are (read manual)*
2) *Know where your camera shooting modes are (read manual)*
3) *Know where your ISO & file size/type controls are (read manual)*
4) *Use your camera's "Program Mode" (aka "P mode")*
5) *Set your ISO to 100, 200 or Auto ISO (in order of preference)*
6) *Shoot at least one image in outdoor sunlight*
7) *Download the file to your computer (optional)*
8) *Print image (if you aren't familiar enough with computers, use a local retail or pro lab printer)*
9) *Bring print to next class*

Collect $5 per student materials fee