

B A S I C S O F
D I G I T A L S L R
PHOTOGRAPHY

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I would highly recommend that you dig up your copy of your camera's users manual - or download a .PDF version for your computer. To find yours search for your camera model plus the words "users manual" nearly all cameras have a users manual online available to download for free. You will want to reference it throughout the class.

OVERVIEW OF PHOTOGRAPHY TECHNIQUE

The four main ways we control our images are through:

aperture,

shutter speed,

ISO

and

White Balance.

White Balance affects the color tone of our images and the other three are primarily light controls and are what we manipulate to create the photograph we desire to make.

Aperture controls how wide the camera “eye” opens, **shutter** speed determines the length of time which the camera eye opens and **ISO** controls how sensitive the image sensor strip is to the light that is coming in. These four elements of photography are what we will be focusing our attention on over the course of this ebook. I’ll guide you step by step through each one until you are shooting manually comfortably and confidently.

WHAT DOES IT MEAN TO SHOOT MANUALLY?



In the image above you see two images – on the left you see that I’ve circled the **manual focus** button on the lens (depending on your camera there may also be a switch on the body of the camera as well) this is **NOT** the place where you want to switch your camera to manual. When we are discussing shooting “in manual” we mean shooting in manual mode.

If you look at the image above you’ll see the mode dial. This is where you control the shooting mode – the modes you will use

during the course of this e-book are aperture priority mode (A or Av mode) shutter priority mode (S or Tv mode) and manual mode (M mode). These modes are pretty self-explanatory, if you set your camera to aperture priority then you will be setting your aperture and the camera will automatically adjust all of the other settings to get what it thinks is a good exposure. Manual mode gives you the greatest level of control and once you have learned it will take you one step closer to creating those photos that you *want* to take instead of settling for the quality of the photos that you are currently taking.

DAY 1: APERTURE

HOW DO I ADJUST MY APERTURE?

If your camera is set to aperture priority more simply rotate the command dial to adjust your aperture. If your camera is set to manual mode you will need to press the +/- button which is most commonly located either on the top right (pictured here) or back panel of the camera.



If your camera has two command dials you will adjust your aperture using the secondary or sub-command dial. Refer to your users manual for how to do this on **your camera**.

SO WHAT DO THE NUMBERS MEAN?

Aperture is measured in f-stops when you see it written it usually looks like this = $f/3$ which means that the aperture or opening of the camera opened to f-stop 3. The **lower** the number the **wider** the eye of the camera opens allowing more light to come in through the lens. The higher the number the smaller the aperture. So $f/2$ is a very wide opening, and $f/22$ is a mere pinpoint of light.

So if, for example, I have something that I want to photograph, if I step outside and photograph it I will probably set my aperture somewhere around $f/10$ to $f/16$ depending on the conditions and the affect I want to create. Then if I bring my subject inside and set it on a windowsill in indirect light, then I will most likely be photographing it with a wide aperture, around $f/5$ most likely, because there is less available light.

NOTE: APERTURE & ZOOM LENSES

Every lens limits how wide of an aperture you will be able to use, some more than others. For example the lens that I use most of the time is the f/3.5-5 18-55mm lens which means that the widest my aperture can be is 3.5 at 18mm **but** if I zoom my lens in to 55mm then the widest my aperture will open is f/5.

HOW DOES APERTURE AFFECT MY EXPOSURE?

Notice in these photos that the photo with the lower/wider aperture is bright and the photo with the smaller/higher aperture is darker.



HOW DOES APERTURE AFFECT MY DEPTH OF FIELD?

Another affect that aperture has on your image is on your depth of field, or the area in your image that is in focus. A wide aperture creates a shallow depth of field, or a narrow strip that is in focus, whereas a smaller aperture will create a deep depth of field.



Notice in the shot with the wider aperture (on the left) how the lower half of the photo is out of focus, whereas in the shot with the smaller aperture the whole subject is in focus. This is an example of depth of field.

NOTE: FOCUS & BOKEH

The area in your photo that is sharp and clearly defined is called "in focus" and the area that is blurred is called bokeh. The quality of your bokeh is somewhat dependant on the lens that you are using and how fine-tuned your settings are. Technically if you start to see circles in your bokeh then your aperture is too wide. You sometimes see this style of bokeh in popular photography, but it's technically not desirable. I find with my zoom lens that my bokeh is better when I zoom my lens in as far as it will go. Sometimes this is desirable - especially in outdoor photography, but I don't zoom my lens in when I'm shooting indoors since this narrows my aperture (see the note above).

HOW DO I USE SHALLOW DEPTH OF FIELD?



Notice in the photos above that my depth of field is very shallow (and my aperture is quite wide). I have used that shallow depth of field creatively by changing my point of focus. In the photo on the left the point of focus is the face of the stuffed dog but in the photo on the right I've gone for a more creative point of focus and focused on the dog's paw. This is one way to use Depth of Field - for creative focus. I'll discuss other ways to use depth of field later on.

WHEN WOULD I USE A NARROW APERTURE?

I typically use a narrow aperture when I am shooting outdoors, or in any other well-lit situation. Another situation in which I choose a narrow aperture is when I want a greater depth of field. A narrow aperture can also be good for capturing details.

NOTE:

Remember to not shoot too close to your subject! Sometimes we try to frame our image too tightly and end up losing some sharpness to our focus. So take a step back, you can crop it later.

DAY1: YOUR ASSIGNMENT

Baby Steps - if shooting these assignments in full-manual mode is too overwhelming. Try shooting in Aperture Priority (A or Av on the mode dial of your camera). You will control your aperture but the camera will control shutter speed - so you're more likely to get a good shot and less likely to get frustrated.

Assignment 1 Aperture & Window Light : take a simple object such as a piece of fruit, stuffed animal or doll and place it near a window in some nice indirect light. For instance you could set it in a chair, propped up on a bed or next to an open door. Photograph it at a wide aperture (between f/1 - f/5) and again at a narrower aperture (from f/9 and f/11).

If you are shooting in manual mode you will need to compensate by adjusting shutter (you'll need a slower shutter for your narrower aperture) and ISO (you'll need a higher ISO for the narrower aperture).