

# SHAW ACADEMY

Lesson 5 Course Notes

**Diploma in Photography**



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# The Light Meter

The light meter inside our camera gives us information about how much light is coming into the camera from our scene. It allows us to understand in advance of taking the shot whether we have too much light, too little light or just the right amount.

In automatic mode the light meter sends the camera information about how much light is currently coming into the camera and the camera comes up with a shutter speed and aperture combination to ensure that the picture is at the right level of brightness.

**The light meter measures light in terms of Stops. A stop in photography is a measurement of light.**

A stop is a doubling or halving of the amount of light in your scene

Any time you **double** the amount of light getting to the cameras sensor you are **increasing** the light by 1 Stop.

Any time you **half** the amount of light getting to the cameras sensor you are **decreasing** the light by 1 Stop.

**The light meter displays these stops on your camera using a scale with -2, -1 on the left, 0 in the center and +1, +2 on the right.**

-1 Stop = Half the amount of light is getting to the sensor than is needed to correctly expose the scene.

-2 Stops = Four times less light is getting to the sensor than is needed to correctly expose the scene.

0 = When the camera is receiving the right amount of light to achieve a correct exposure

+ 1 Stop = Double the amount of light getting to the sensor than is needed to correctly expose the scene.

+ 2 Stops = Four times the amount of light getting to the sensor than is needed to correctly expose the scene.

In **automatic mode** the camera tries to always achieve a meter reading of 0. It does this by constantly readjusting the aperture and shutter speed settings for every lighting conditions to ensure that the correct amount of light is always coming into the camera.



In semi-automatic modes the camera tries to always achieve a meter reading of 0. As you are controlling one function in a semi-automatic mode, such as a shutter speed or aperture, the camera uses the opposite function to ensure enough of light is coming into the camera and the meter stays at 0. This will give you a consistently good exposure.

In **Manual** mode we have full control over the camera. We will change shutter speeds, apertures or Iso settings to ensure that the meter is at 0 and we achieve a good exposure.

### **Metering issues in Auto and Semi-auto modes:**

When using automatic and semi-automatic modes the camera has a tendency to run into some over and under exposure issues.

When faced with a subject or scene with a lot of highlights, such as a snow scene, the camera can underexpose the scene by not letting enough of light in, and not allowing the subject to brighten up to the right level.

When faced with a subject with a scene with a lot of dark tones, such as a black object on a black background, the camera can overexpose the scene by letting too much light in, and over brightening the scene or subject.

To correct this issue the camera gives us a function called **Exposure Compensation** which allows us to purposely over or under expose a scene to compensate for this issue.

Exposure compensation allows us to dial in a certain amount of over exposure to allow our bright scenes to brighten up to their correct level. It also allows us to dial in a certain amount of under exposure to prevent dark objects/scenes becoming too bright and over exposed.

Exposure allows you to dial in the amount you would like under or over expose in Stop amounts.

Thank You



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