

May, 2019



2019 Assigned Subjects

- June-Landscape
- September-Cars
- October-Round Things
- November-Blue Hour

June Mini-Program:

Exposure: The Histogram

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Lebanon Camera Club

News

May Meeting: Tuesday, 5/7/19 6:30 pm

Mini-Program: “Lightroom Basics: The Develop Module” by Deb Kreider

Print Competition

Photography Educational Series—Exposure Triangle-Shutter Speed, Aperature, ISO, Depth of Field-Part 1

The three camera functions of ISO, aperture, and shutter speed work together to deliver the desired amount of light to the imaging component. This ‘correct amount of light’ records the image onto a sensor or a piece of film.

A good exposure in photography is generally the right combination of aperture, shutter speed and ISO that best reflects the subject you are trying to shoot

ISO Speed is how sensitive your camera’s sensor is to light, each value of the rating represents a “stop” of light, and each incremental ISO number (up or down) represents a doubling or halving of the sensor’s sensitivity to light.

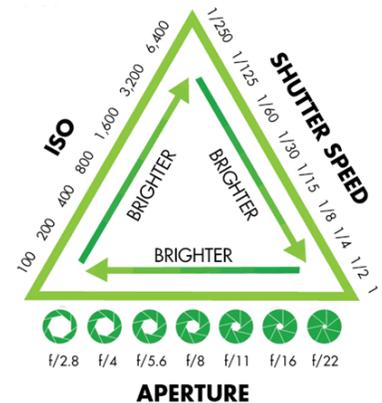
Aperture controls the lens’ diaphragm, which controls the amount of light traveling through the lens to the film plane. The aperture setting is indicated by the f-number, whereas each f-number represents a “stop” of light.

Shutter Speed indicates the speed in which the curtain opens then closes. This is essentially how long light is permitted to hit your camera’s sensor once you hit the shutter-release button. Each shutter speed value also represents a “stop” of light. The shutter speed is measured in fractions of a second.

When these three elements are combined, they represent a given exposure value (EV) for a given setting.

Any change in any one of the three elements will have a measurable and specific impact on how the remaining two elements react to expose the film frame or image sensor and how the image ultimately looks.

For example, if you increase the f-stop, you decrease the size of the lens’ diaphragm thus reducing the amount of light hitting the image sensor, but also increasing the DOF (depth of field) in the final image.





“When you photograph people in color, you photograph their clothes. But when you photograph people in Black and white, you photograph their souls!”
— Ted Grant



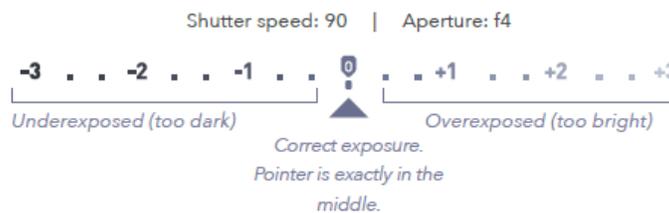
Exposure Triangle cont'd.

Depth of field – area of acceptable sharpness in a picture - Foreground and/or background are in focus

Reducing the shutter speed affects how motion is captured, in that this can cause the background or subject to become blurry. However, reducing shutter speed (keeping the shutter open longer) also increases the amount of light hitting the image sensor, so everything is brighter.

Increasing the ISO, allows for shooting in lower light situations, but you increase the amount of digital noise inherent in the photo. It is impossible to make an independent change in one of the elements and not obtain an opposite effect in how the other elements affect the image, and ultimately change the EV.

Most cameras have a built-in exposure meter, which may look something like these diagrams.



Research your own camera, to determine exactly what the meter indicator inside the viewfinder looks like for your particular model. Even if your light meter looks differently, they function in the same way.

The exposure meter tells the camera, (and you), whether the photo will be underexposed (too dark), properly exposed (good brightness and tone), or overexposed (too light).

ISO

ISO is actually an acronym, which stands for International Standards Organization, which is the organization that standardizes sensitivity ratings for camera sensors.

The ISO rating, which ranges in value from 25 to 3200 (or beyond), indicates the specific

The sensor captures the light and is controlled by the ISO. The higher you set the ISO, the more sensitive this will be but it'll also capture more digital noise.

100 200 400 800 1600 3200 6400

Low ISO =
Less Sensitive, Less Noise

High ISO =
More Sensitive, More Noise

Exposure Triangle cont'd.

light sensitivity. The lower the ISO rating, the less sensitive the image sensor is and therefore the smoother the image, because there is less digital noise in the image.

The higher the ISO rating (more sensitive) the stronger the image sensor has to work to establish an effective image, which thereby produces more digital noise (those multi-colored speckles in the shadows and in the midtones).

So what is digital noise?

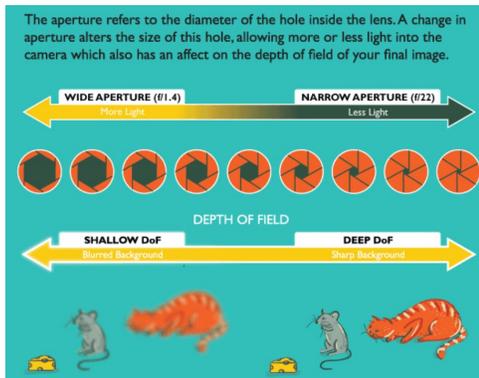
It is any light signal that does not originate from the subject, and therefore creates random color in an image. The digital camera engineers have designed the image sensor to perform best at the lowest ISO (just like with film).

On most digital cameras this is ISO 100, although some high end DSLRs have a mode that brings the ISO down to 50 or even 25.

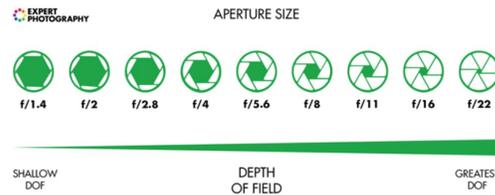
Aperture

A lens's aperture is the opening in the diaphragm that determines the amount of focused light passing through the lens.

At a small f-stop, say $f/2$, a tremendous amount of light passes through, even at a fraction of a second; but at $f/22$, when the diaphragm is perhaps at its smallest, only a tiny amount



The scale is as follows: $f/1.4, f/2, f/2.8, f/4, f/5.6, f/8, f/11, f/16, f/22$.



of light is let in (even at longer shutter speeds).

An interesting thing about the aperture and the f-numbers is that it doesn't matter the focal length of the lens as long as the f-number is held constant. This is because the arithmetical equation that determines the f-number indicates that the same amount of light passes through the lens on a 35mm lens as on a 100mm lens, with a shutter speed of $1/125s$.

The size of the diaphragm is unquestionably different, but the amount of light passing through is the same.

Shutter Speed

Shutter speed is measured in fractions of a second, and indicates how fast the curtains at the film plane open and close.

The shutter speed controls how long light enters the lens and hits the image sensor or film plane. The shutter speed enables you to capture the world in split seconds, but it can also



“There are no bad pictures; that's just how your face looks sometimes.”
— **Abraham Lincoln**

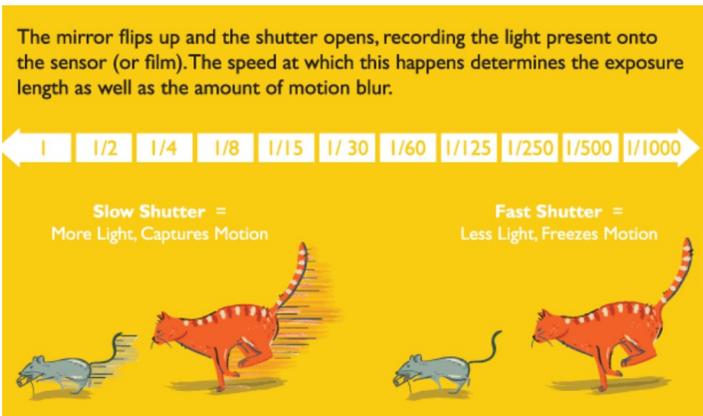


cont'd.

absorb the world at speeds upwards of three and four seconds (or remain continually open up until the photographer wants to close the curtain).

Snapping the shutter in a fraction of a second, also gives you control on how motion is recorded. If the shutter speed is faster than the object or background, then the image will be tack sharp. If the shutter speed is slower, then you'll get blurred objects.

Think about the rain in a rainstorm, how fast is that water falling? Well, at 1/30th the raindrops are streaks of indistinguishable white. But at 1/250th, the raindrops hover in mid air and you can see the full swell of each water drop. To be continued next month...

**Photo Contests**

Rennen Photography
2019 Contest [https://
photocontestguru.com](https://photocontestguru.com)

Great American Photo
Contest Monthly Baby
Photo
[www.greatamericanphoto
contest.com](http://www.greatamericanphotocontest.com)

Various Photo Contests
(Many Different Topics)

[https://
www.photocontestinsider.co](https://www.photocontestinsider.com/)

m/
and

<http://www.voubs.com>

and

[https://
www.outdoorphotographer
.com/photo-contests/](https://www.outdoorphotographer.com/photo-contests/)

[http://
www.photocrowd.com](http://www.photocrowd.com)

and

www.life-framer.com/

Photo Opportunities

May 4
Velofest in Trexlertown
<https://thevelodrome.com/about-velofest/>

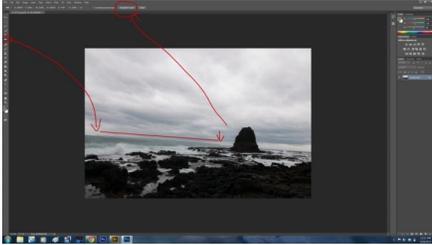
May 11-12
Hershey Gardens
Mother's Day Weekend
9am-5pm
<https://www.hersheygardens.org/>

May 9-12
Longwood Gardens
Mother's Day Weekend
[https://longwoodgardens.org/events-
performances](https://longwoodgardens.org/events-performances)

May 1–June 30
Chinese Lantern Festival,
Philadelphia
[https://uncoveringpa.com/
chinese-lantern-festival-in-
philadelphia](https://uncoveringpa.com/chinese-lantern-festival-in-philadelphia)

May 25-27 Harrisburg
Artsfest
www.artsfesthbg.com

Photo Editing Feature of the Month—Straightening an Image

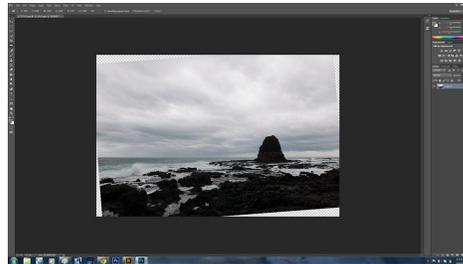


In Photoshop, head to the toolbox on the left side and look for the Eyedropper tool. If you hold your mouse key down on this tool, you'll then see more options, including a Ruler tool. Click on it:



Take the tool to your image and find a line that *should* be straight, like the horizon line. Click and hold on one side, then drag it along the line and unclick. Once you have your line, go up to the top where it says “straighten.” Click on it, and you'll end up with this:

If you use Photoshop Elements (PSE), you'll find this feature with the modify tools. In GIMP (GNU Image Manipulation Program), the tool isn't available — if you want to straighten an image, use the Rotate tool and do it visually.



The horizon is now level!

New Product of the Month—Next Level LEDs

LEDs are hot (figuratively) but they've mostly been restricted to use as continuous light sources. Rotolight and LumeCube have both produced LEDs that can flash, but we haven't yet seen an LED flash that's strong enough to overpower the sun or give a more powerful (think 250 W/s-plus) strobe a run for its money. That could change this year, if only because there's plenty of incentive to build an LED flash and LED technology itself is improving along a rapid, Moore's Law-like trajectory.

LEDs don't need to “recycle” like a conventional flash tube, so there's literally no delay between flashes, even at the highest power level. They have adjustable color temperatures, making them easy to balance against ambient light. Many video-centric LEDs have a full spectrum of color options, giving you the effect of a gel without having to fumble with tape and cellophane or modifiers. Plus, an LED flash would have the ability to pull double duty as a continuous light, making it more versatile. The company, or companies, that can pull off the engineering feat of building a robust LED flash could reap quite the reward.

Source: <https://www.pdonline.com/gear/the-photography-tech-and-trends-were-excited-about-for-the-year-ahead/>

Workshops and Tours

Apogee Photo Magazine

For more information log on to
[http://www.apogeephoto.com/
photography_workshops.shtml](http://www.apogeephoto.com/photography_workshops.shtml)

Wildlife and Nature Travel

www.wildlifeandnaturetravel.com

Art Wolfe Photography Workshops

www.artwolfeworkshops.com

Don Smith Photography

www.donsmithphotography.com

Brenda Tharp

www.brendatharp.com/

M&M Photo Tours

<http://www.mmphototours.com/>

Arizona Highway Photo Workshops

<http://www.friendsofhighways.com/>

John Shaw 2-Day Nature & Digital Photography Seminar

<http://www.photosafaris.com/>

Jack Graham Photography

<http://jackgrahamphoto.com/>

Rocky Mountain Reflections

www.rockymtnrefl.com/photographyworkshops.html

Slonina Photography—Explore Wild America

<http://www.sphotography.com>

Darwin Wiggett Tours & Workshops

<http://oopoomoo.com/workshopsandtours/>

Outdoor Photo Workshops

<http://www.outdoorphotoworkshops.com>

Photo Workshop Adventures

www.photoworkshopadventures.com

Michael Francis Photo Shoots

www.michaelfrancisphoto.com

Osprey Photo Workshops & Tours

www.ospreyphoto.com

Tom Dwyer Tours & Workshops

www.tomdwyerphoto.com

Horizon Photography Workshops

www.horizonworkshops.com

Below is a link of online pdf files from
past monthly meeting presentations:

[http://www.bellalum.kotay.net/public/
program/LebanonCameraClub/](http://www.bellalum.kotay.net/public/program/LebanonCameraClub/)

2019 Officers

President: Paul Hess
rvdoc@comcast.net

Vice President: Ed Gundrum,
ejgun@evenlink.com

Secretary: Tammy Wolfe,
lebanoncamera@gmail.com

Treasurer: Joni Bonus O'Ship
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Program: Keith Kotay
keith@kotay.net

Newsletter: Connie Fullenlove
connief922@gmail.com

Competition: Melodie Bechtel,
bechs@verizon.net

Community Affairs: Bill Sypher,
sypher1@comcast.net

Meetings are the first Tuesday of each month!

If you would like to do a program on anything digital related or know someone who would, please let us know.

Or

If you have something of interest for our members, please email them to the Newsletter Editor, Connie at lebanoncamera@gmail.com.

MONTHLY MEETING
Be Connected. Be Heard. Be Informed.

Everyone is invited to attend our regular monthly meetings.

Unless otherwise noted we meet the first Tuesday at 6:30PM in St. Stephen's Christian Fellowship Church, 1100 Hunter Chase Lane, Lebanon PA.

Directions: From Rt 72 N of Lebanon where N 12th St becomes Jonestown Road at the McDonalds, follow Jonestown Road north past the Turkey Hill. Jonestown

Road will become Sandhill Road. Keep on Sandhill road until it branches to the left into Grace Avenue. Church is on the left 3/10 of a mile from the split *before* you pass Youth for Christ and Fisher Bus..

The club is a member of the Photographic Society of American (PSA).

Cancellation or last minute changes of events will normally be sent to members via email and broadcast on radio station WLBR, AM 1270.

Only members may enter competitions. Dues are \$25 per year and include the newsletter and monthly meeting minutes.

Digital Competition entries are due at least one day prior to the scheduled competition.

Competition Committee will keep winning Print entries for the end of year competition unless the member requests return of entries before then. In that case, the member would be responsible for re-submitting them for the end of year competition.

Products and services of interest to photographers are presented as a service without review or endorsement.

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Dates and times of events may change. Please check local listings.