



*Photograph*  
*vs*  
*Snapshot*

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What's the Difference?




*First, a word from our sponsor*



# Introductions

- Favorite subjects
  - How long interested in photography
  - What you want to gain from this course
  - Camera and lenses
  - What do you do with your pictures
  - What editing program do you use, if any?
  - Do you print your own, have other do your printing?
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# Course Objectives

- How to achieve a properly exposed image
  - How to manage exposures for the subjects photographed
  - Understand the interaction between the three exposure components and how to use them to create an image
  - Know the difference between Raw and Jpg files and when to use them
  - Understand the basic compositional elements
  - Explore some of the “fun” things you can do with photography
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# Snapshot

*Take*

VS

# Photograph

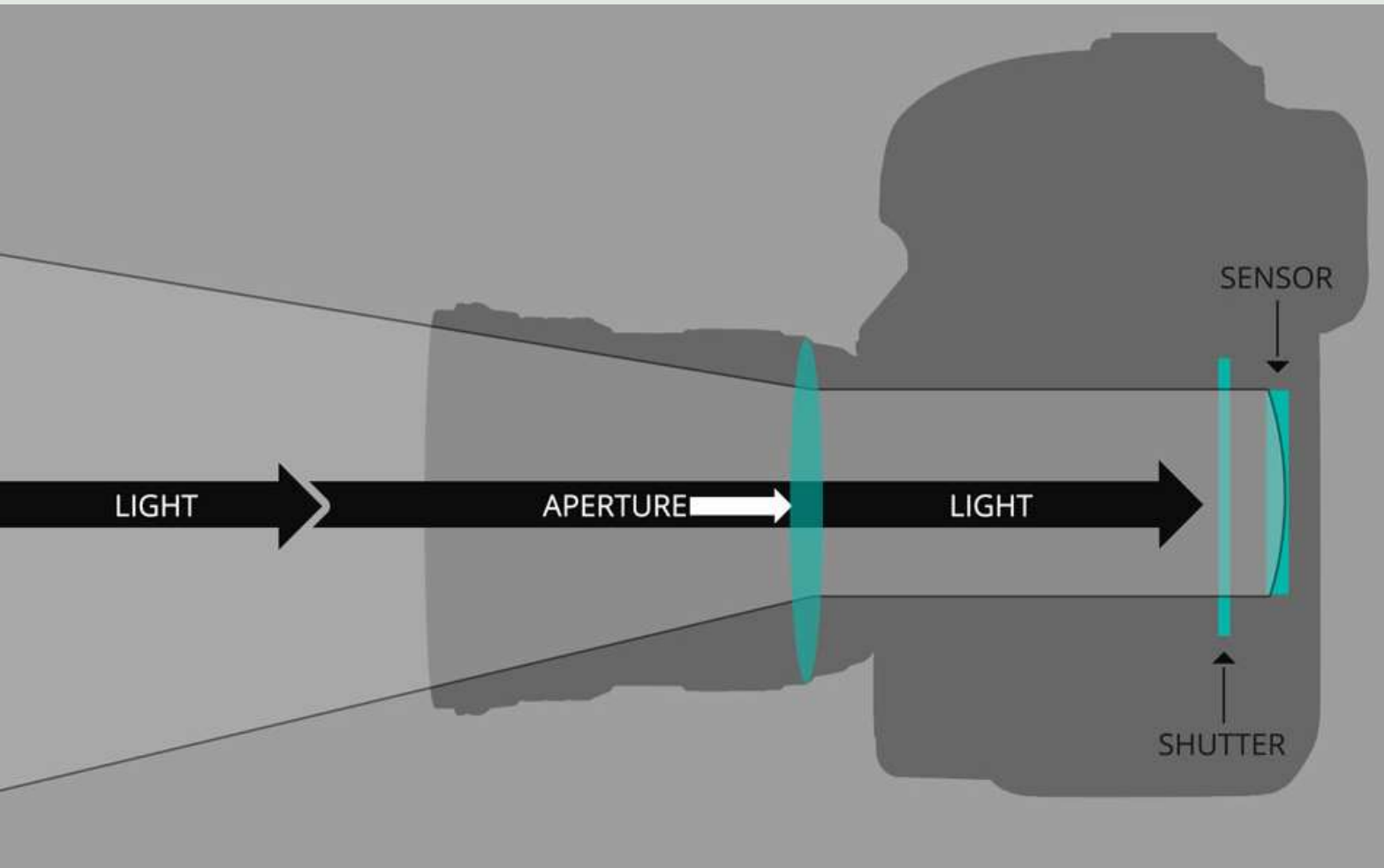
*Create*

- Casual Recording of Event, People, etc. with little consideration or concern about composition and other creative details
- An image created by consciously employing and coordinating technical and design elements to *tell a story*

# Exposure

The amount of light *recorded* by the camera's sensor

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## Controlled by:

- Amount of available light
- Amount of light passing through the lens to the sensor
- Duration light is recorded on the sensor
- Sensitivity of the sensor to light

**Goal:**  
Achieve the  
Proper Exposure  
for the Subject



Possible  
pics of light  
and dark  
proper  
exposures





# Camera Controls for Creating the Proper Exposure



- **Manual:** Independent control of Aperture and Shutter speed/time
- **A/Av:** You set the Aperture, camera adjusts shutter speed based on the light and metering selection (Aperture Priority)
- **T/Tv:** You set the Shutter speed, camera adjust the aperture based on the light and metering selection (Shutter Priority)
- **P** Camera adjust both Aperture and Shutter speed based on preprogramed responses to the exposure pattern (Program-Not Professional)
- **A:** Camera make automatic shutter speed, aperture and iso adjustments Adequate exposure most of the time, but you have no control of Aperture or Shutter speed. (~~Automatic~~)

*After this series I hope you will never use this setting*

# ISO

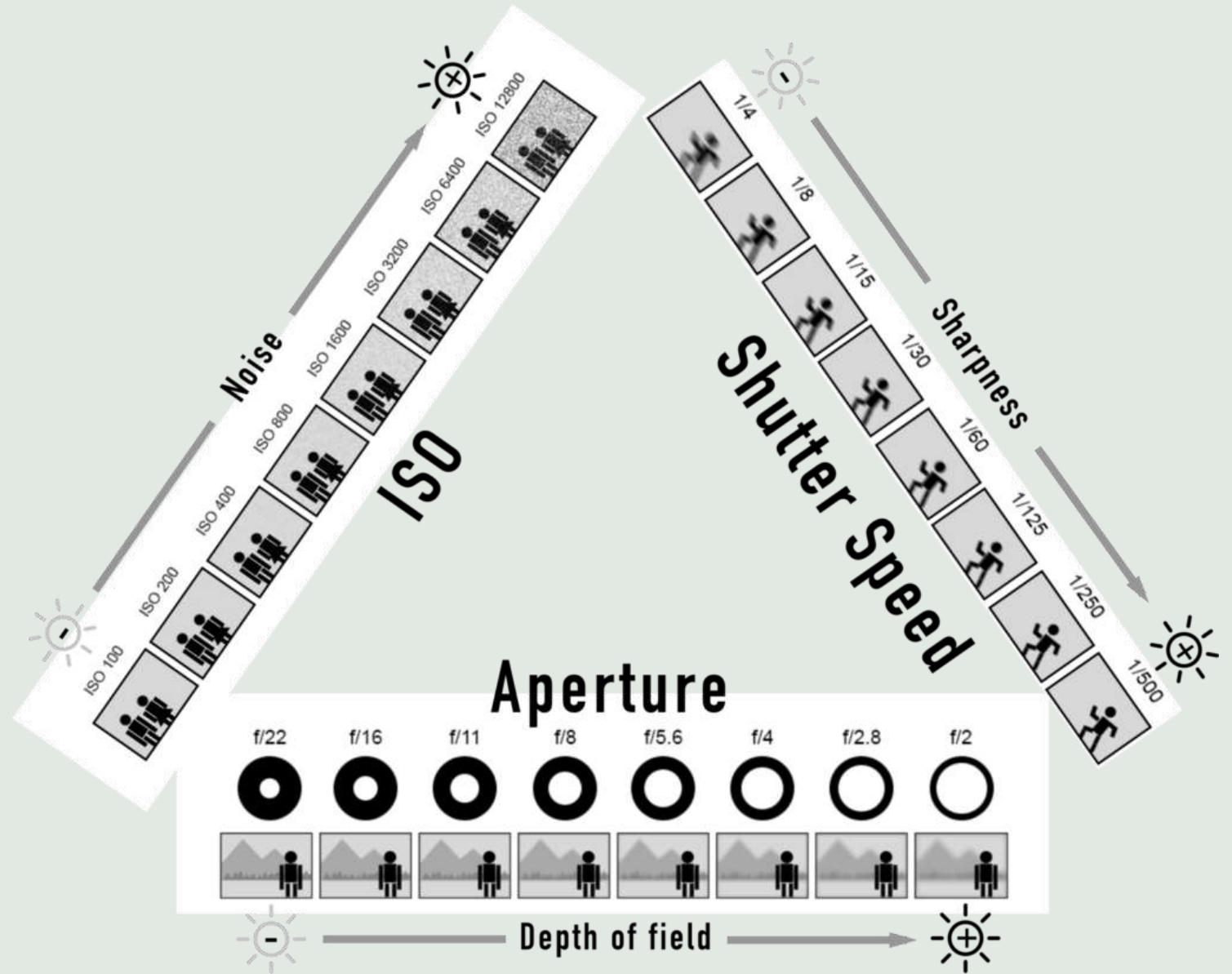
International Organization for  
Standardization

aka: film speed

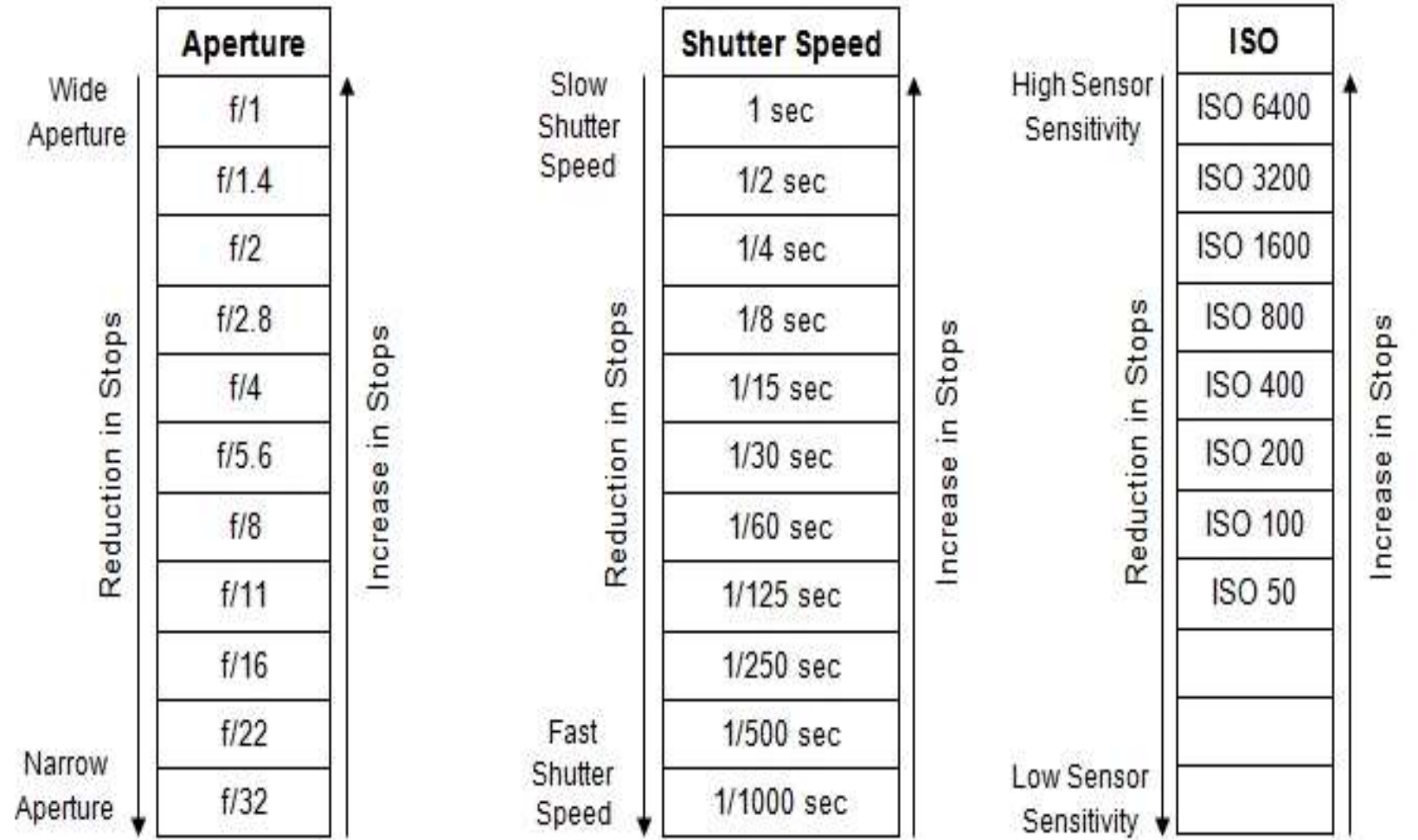
## In Digital Photography

- Sensor's sensitivity to light
- 100 usually the base line
- Higher number - greater sensitivity
- Higher number - greater potential for *noise*
- *Analogous to grain in film not the same*
- Sensors made up of millions of individual red, green, blue transistors - 1 per pixel
- Noise: red, green, blue artifacts created by the transistors creating each pixel
- Note: quantity does not equal quality

# Exposure Balancing Act



# Equivalent Exposures





# What Happened?



# Metering

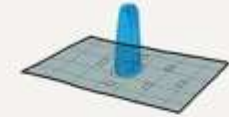
How the camera attempts to create the proper exposure

## Metering modes



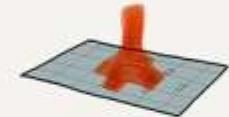
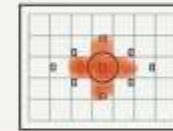
### Spot Metering

Takes into account only a small area of the image in the center of the viewfinder or in the selected focus point.



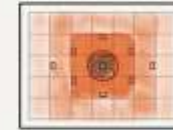
### Partial metering

Similar to the Spot Metering, but with a larger circle.



### Center Weighted Metering

The camera gives a greater weight to the light intensity located in a circular area in the center of your viewfinder.



### Evaluative or Matrix Metering

Takes into account the entire frame to carry out the light intensity metering and the exposure calculation.



# Light Meters

Only see shades of black and white

NEED IMAGE

Base exposures on creating middle grey

They can be fooled

- By the light intensity of the scene
- Contrast between main subject and surrounding elements

- Add color / b& w picture







# File Size & Type

## RAW

- Post processing (editing)
- Cropping in
- Printing
- Complex images
- Non-destructive

## JPG

- Snapshots
- Web and phone viewing
- Preprocessed by camera
- Destructive

## Tiff

- Universal format for high resolution files
- Non-destructive
- Smaller than Raw file



# Depth of Field

*Possibly most under used creative tool*

Shallow DoF



## **Controlled by:**

- Lens focal length
- Aperture
- Distance to subject

Deep DoF



*Composition*

*Strong Composition  
Makes A Compelling  
Image/Story*



# Composition Elements

## Focus on one story

- Titling an image help
- Mind vs Image
  - 3D / 2D
  - Emotional component
- Previsualize

## Vantage point

## Perspective



# More Compositional Elements

- Pre visualize
- “Rule” of thirds
- Leading lines
- Breaking rules
- Using your feet
- Tripod

# Composition Killers

- Multiple Stories
- Backgrounds
- Distracting highlights
- Distracting elements
- Too much sky

Fun &  
Creative  
Things you  
can do with  
Photography





# Bonuses

*Basic editing*

*Equipment essentials*

*Alternative imagery*

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# Assignment for Session 2

- Using the Triangle diagram Learn the relationships between Aperture, Shutter speed, and ISO
- Using the Equivalent Exposure chart go through a series of situations in which by changing one function, a change in one or more of the other two functions is required to maintain the same exposure.
- E.g., Changing from f8 to f4, a 2-stop change. To achieve the same exposure, you can increase the shutter speed by 2 stops, OR you can change the shutter speed by 1 stop and the ISO by 1 stop.