

# FUNDAMENTALS OF PHOTOGRAPHY/CINEMATOGRAPHY

## LECTURE NOTES BY JD GONZALES

### Fundamentals of Photography/Cinematography

Aperture What is the aperture?  
The openness of the lens measured by F-stops.

What does it control?

How much light is being let into the camera as well as....?

What are the main F-Stops?

F2.8 has a smaller or wider aperture than an F16?

What is Depth of Field?

Wider the aperture, \_\_\_\_\_ the Depth of Field?

Smaller the aperture, \_\_\_\_\_ the Depth of Field?

What is the best way for adjusting exposure?  
Why?

Focal Length What is it?

Lenses What's the difference between a prime and a zoom lens?  
When are lenses most sharp?

Shutter Speed What is it?  
Film is comprised of a series of stills, a digital shutter allows light to hit each frame.

What does it control?

For the most 'normal' look, shutter speed should be double the FPS (frames per second)

24FPS -> 1/48 shutter speed

For the most normal look, what is the shutter speed at 60FPS?

What happens to our image when the shutter speed is raised (e.g. to 1/200)?

What is motion blur?

ISO What is it?  
The sensitivity of the camera sensor or film to light.  
Increasing the ISO allows us to do what?  
What are the negative effects of raising the ISO?  
What is noise and why is it so darn frustrating?

wonky colors, not monochromatic, gives a less saturated image.

remember if you can't see it in the camera, you will see it in post.

What is Native ISO?

What are the benefits?

### Key Terminology

Aperture  
ISO  
Shutter Speed  
FPS

Dynamic range

Depth of Field  
Highlight Tone Priority Mode

White Balance

Kelvin

Tungsten

Daylight

Fluorescent

Focal Length (FL)

Zoom

Prime

Rolling Shutter Effect

Sensor

Histogram

Color

Saturation

Hue

Contrast

Brightness

High Key Lighting

Low Key Lighting

Sharpness

Audio

Auto Gain Control (AGC or Auto)

Manual