

# FIVS 210: Lab 3 (Focal Length)



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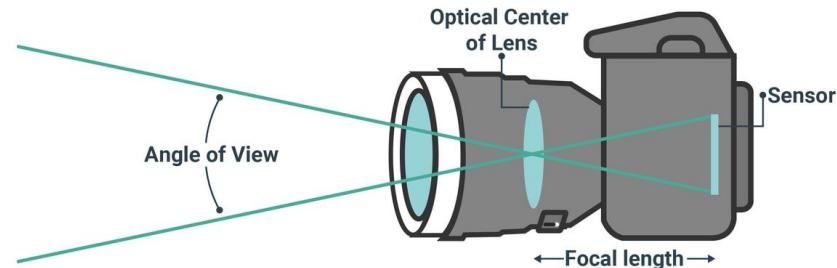
Grab your camera! Charge your batteries! Make your folder under Lab #3 in the Google Drive!

Get into groups of 2-3 people

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# Focal Length

## WHAT IS FOCAL LENGTH IN PHOTOGRAPHY?



Focal Length is the distance between the optical center of a lens and the camera image sensor

Focal length works describing each lens in terms of millimeters  
(lens mm)

The longer the focal length, the physically longer the lens will be



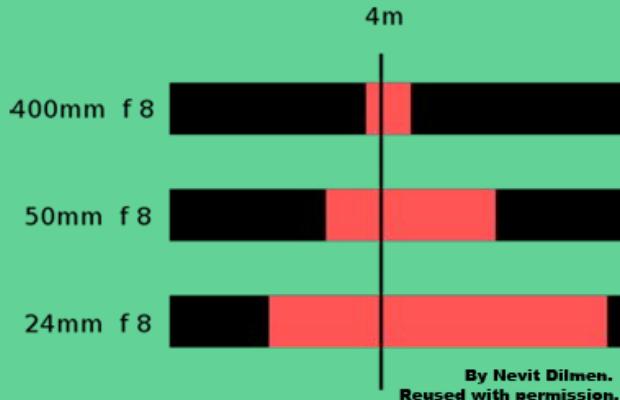
# Changing Focal Length

Adjusted by twisting the lens of camera. Ranges from 18mm to 55mm

Be careful when you are using a tripod

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# Depth of Field changes with focal length



<https://chattanoogaphoto.org/the-artistic-uses-of-depth-of-field-controls/>

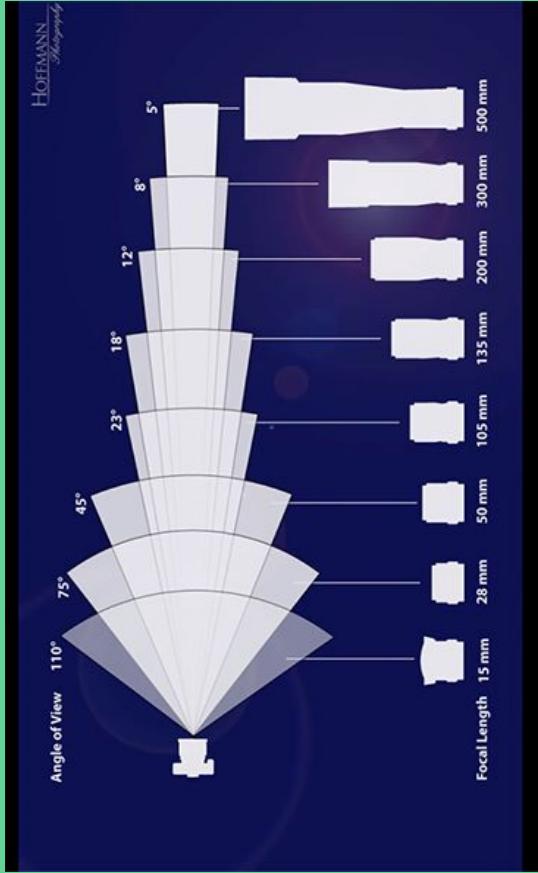


Focal length: 300mm



Focal length: 70mm

# Angle of view changes with focal length

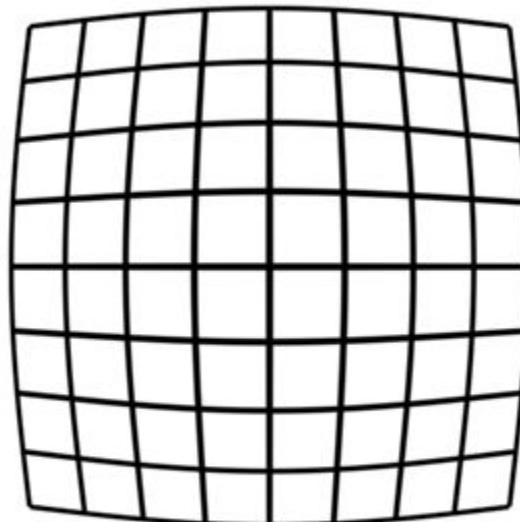


Focal length: 70mm

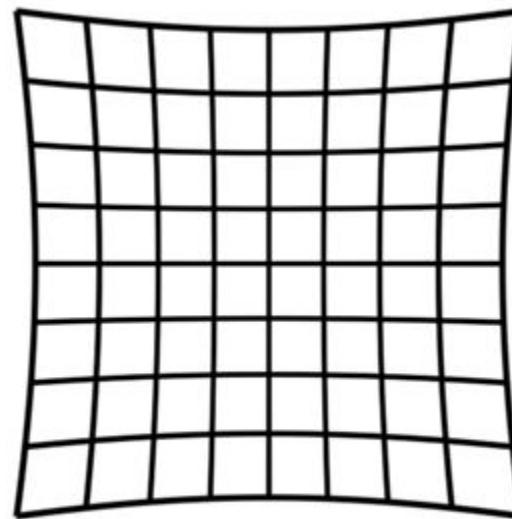


Focal length: 300mm

**Wide angle lens makes distortion**



Barrel Distortion



Pincushion Distortion

# Polarizer

Reduces glare caused by taking  
a picture behind glass

In forensic photography, there are many instances in which you have to take pictures through glass. Can you think of a few?

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No Filter



Max Polarization



# Todays Lab

You are going to be creating a mock crime scene! Using the evidence provided in the box up front and your crime scene investigation kits. You need different sizes of evidence to ensure you can practice focal length. Work with a group to set up the scene and then you all photograph it individually. Take long, medium, and close range shots (changing focal length). Take up close detailed pictures of the evidence. Use evidence markers to label your evidence and use rulers for size comparison.

# Before we begin..

Delete all photos on the camera

Put the camera settings on Delta L

Ensure the settings are in manual focus and M mode

## Example

Focal length —  
# shown  
in camera

- no matter how many pages it takes I abe it!!

- means  
it was  
perfect  
no comment

Submit two photos using different focal lengths to your Digital Portfolio!

Remember to name them  
*Lab #3-Photo 1*  
*Lab #3-Photo 2*

Submit **ALL** photos to Google Drive under Lab 3 Folder!

## Don't forget photo log

Lab #3 Questions  
are due Next  
Tuesday!