

# BEGINNERS PHOTOGRAPHY CLASSES

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Which Camera?

(The differences between camera types and their uses)

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# Questions

Before selecting a camera from the array of models, types and prices you should be able to answer the following;

What will I use my camera for?

Will I be travelling a lot?

What type of photography am interested in?

What can I afford?

What depth of knowledge do I need to operate this camera?

What else do I need to complete this camera (Body only)

## Digital SLR Cameras: (aka Digital Single Lens Reflex Cameras or DSLR cameras):

Larger than any compact consumer camera and putting one in your pocket is out of the question.

Examples Nikon D3300, Canon D60, Pentax K5, Olympus E-5. you can set the camera to the automatic mode and just start taking pictures.

However, you also have the option of taking pictures in the full manual mode, Aperture Priority, Shutter Priority, or program modes.



# DSLR

Offers more control over exposure than other types of camera

you can change the camera lens to fit different situations.

For instance you can use a fixed focal length 28mm lens for wide angle scenes, then remove that lens and put on a 200mm fixed focal length telephoto lens to pull the scene in closer.

You can fit many sizes of zoom lenses for particular situations

*(More on lenses next week)*

# DSLR Sensors

**Larger Image Sensor Size/Better Image Quality:** Digital SLR cameras have larger image sensors than those found in compact cameras. The larger size image sensor in a Digital SLR camera will produce a better quality image than the smaller image sensors found in compact cameras.

The pixels on a Digital SLR camera image sensor are larger than the pixels found in a compact digital cameras' image sensor. The larger pixels are more sensitive to light and can record bright or shadow areas in a scene more accurately. (*better dynamic range*)

# DSLR Interchangeable Lenses

**Interchangeable Lenses:** Another major feature that sets a DSLR camera apart from a compact camera is the fact that the lens on a DSLR camera can be changed to better fit the picture taking situation. The lens on a typical compact camera cannot be changed or removed.

*(However some compacts are coming on the market which allow interchangeable lenses)*

# Optical Eye Level Viewfinder:

**Optical Eye Level Viewfinder:** In addition to an LCD viewing screen, Digital SLR cameras have eye level optical viewfinders which allow you to view the scene or subject that will be photographed. It is easier to brace yourself and hold the camera steady when using the optical viewfinder instead of an LCD screen.

**Hotshoe:** Digital SLR cameras have a hotshoe attachment which gives the photographer the option to use external flash units instead of a built in camera flash. This is important when a photographer wants a more powerful light source or wants to have more control over the strength and direction of the light.

## Bridge Compact Cameras-Super Zoom Cameras

Also known as advanced compact cameras

All the features of a basic compact camera with some of the features of basic SLR such as manual mode and semi automatic settings.

Ideal for those who want to step up from basic Compact but who don't want to have to pay large amounts for SLR and all the lenses



# Bridge Cameras

The Bridge Cameras' lens is a "fixed" lens and cannot be removed or changed.

They may have larger maximum lens aperture openings. Larger lens aperture openings allowing more light to reach the image sensor.

They have a wider aperture range, typically from 2.8 to 22 f/stops

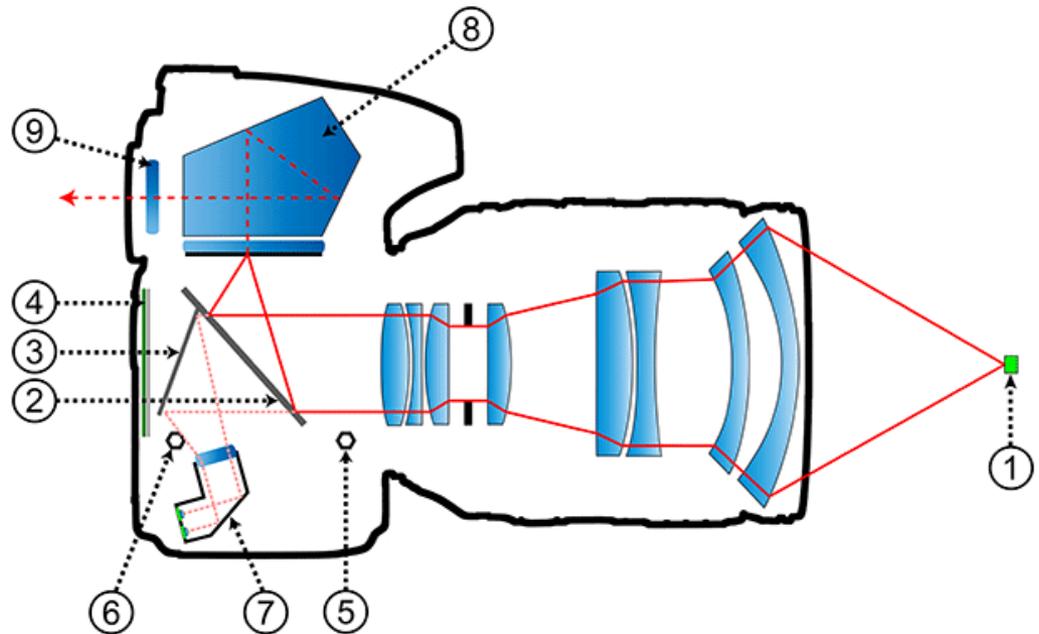
# MIRRORLESS CAMERAS

- In a mirrorless camera, light passes through the lens and right onto the image sensor, which captures a preview of the image to display on the rear screen. Some models also offer a second screen inside an electronic viewfinder (EVF) that you can put your eye to.
- EXAMPLE: Sony's Alpha a600,

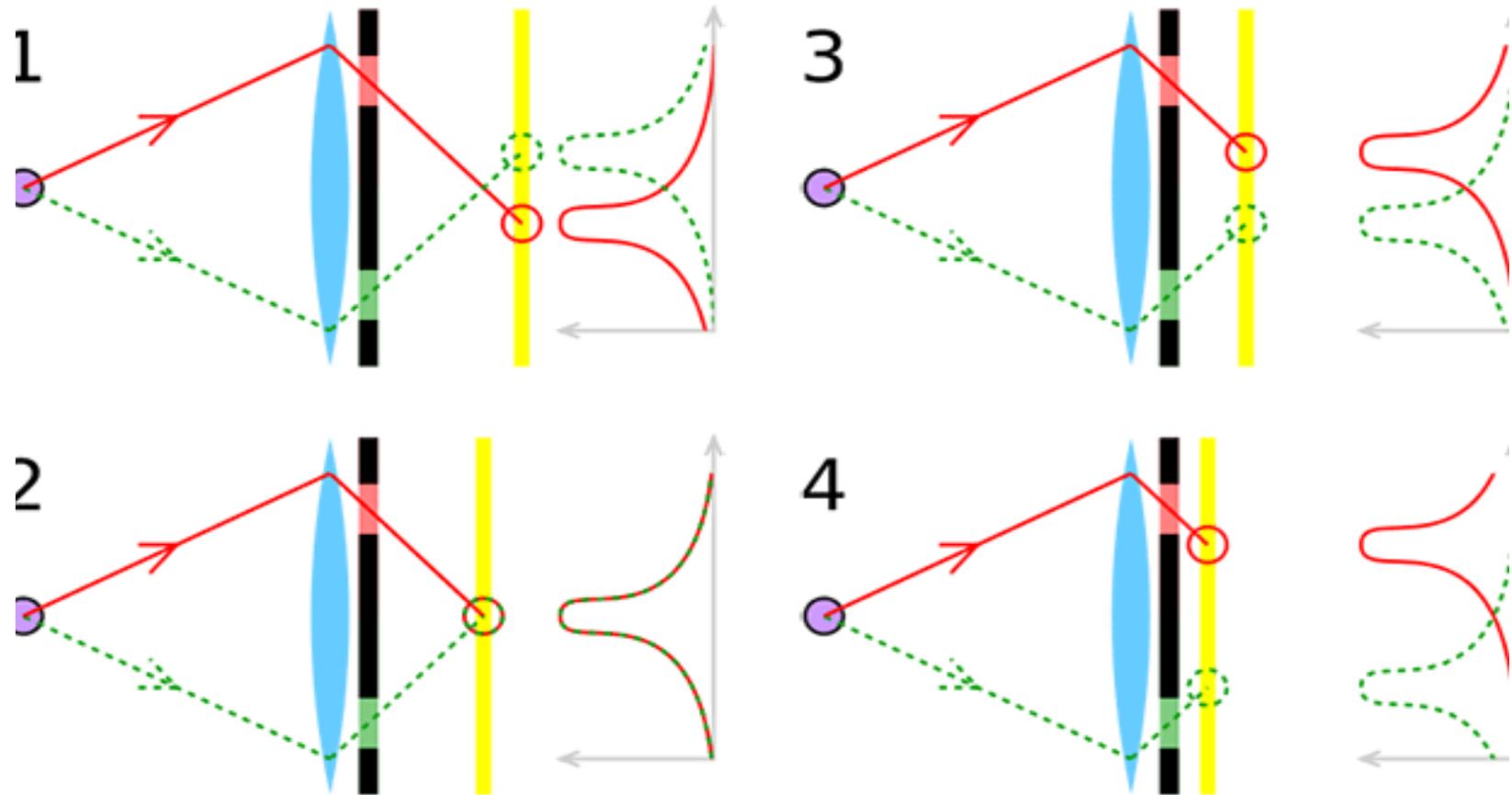


# MIRRORLESS CAMERAS

- DSLR's advantage is going away, due to the incorporation of **phase-detection** pixels into the image sensor on higher-end mirrorless cameras. These cameras utilize both phase and **contrast-detection** to refine their autofocus.



# Phase-detection Autofocus



# Image Stabilization

Shaky hands make for blurry pictures, and the effects are magnified the longer your zoom. Both DSLR and mirrorless cameras offer image-stabilization systems: Sensors measure camera movement, and the camera slightly shifts either part of the lens or the image sensor in a direction that's opposite to the shake. Some mirrorless models shift both the lens element and the sensor in a synchronized pattern.

# Video Quality

Because of their on-chip focus sensors, higher-end mirrorless cameras are generally better-suited to video shooting. DSLRs can't use phase detection with the mirror up while recording video, so they have to use the slower, less accurate, contrast-detection focus method. This leads to the familiar blur-blur look in the middle of a video when the camera starts hunting for the right focus. (An exception is Canon's new DSLRs, such as the EOS 70D, which have phase-detection points on the image sensor, similar to a mirrorless camera.)