

Photography The Basics

Week 1

Camera Parts / Basic Exposure Settings

Reference Books:

Photography (9th Edition) Barbara London/John Upton
companion website www.Prenhall.com/London

The History of Photography Beaumont Newhall

Brief History / Origin of Terms:

"Camera" from the Latin term "Camera Obscura" - meaning darkened room.

1826 Joseph Nicéphore Niépce – first photograph 8 Hour exposure time

1837 Louis Jacques Mande Daguerre – Daguerrotype

1839 William Fox Talbot – Basis of modern photography – photographs on paper – not metal

1861 Matthew Brady - Civil War photographer

1880 PPA Professional Photographers of American established.

1888 George Eastman introduces the roll camera – photography for everyone

Camera Parts & Functions:

Main functions of all cameras

1. View the scene
2. Focus to get the scene sharp
3. Expose the media (film/chip)

Basic parts all 35mm cameras have in common:

1. Lens – to focus the scene and control the perspective
2. Aperture – adjusts the amount of light getting to the media
3. Shutter – adjusts the amount time the light strikes the media
4. Media – records the image
5. Viewfinder – shows the picture that the lens focuses on the scene



Setting the exposure

Automatically setting the exposure

Camera sets the shutter speed or aperture or both.

1. Programmed – camera sets both
2. Aperture-priority – you set the aperture (f/stop), the camera sets the shutter speed
3. Shutter-priority – you set the shutter speed, and the camera sets the aperture

Two common formats for exposure dials:



Canon



Nikon

What do those letters mean?

The four settings you'll use the most are:

"M" - Manual - You set the shutter speed and the aperture.

"Av" (Aperture Value) or "A" (aperture) - Aperture Priority - You chose the aperture, and the camera selects the shutter speed.

"Tv" (Time Value) or "S" (shutter) - Shutter Priority - You chose the shutter speed, and the camera selects the aperture.

"P" (Program) - Program Mode - The camera selects the shutter speed and aperture. The "safe" mode when you absolutely must get the shot, but are willing to sacrifice creativity to get it.

All those "cute" picture settings/modes are a great way to make the camera look impressive, but do little in terms of being useful if you don't know what they are actually doing. In the end, the camera is still doing a lot of the thinking for you and the result may be incorrect.



TIP: When hand holding a camera, to keep the picture sharp, the shutter speed should be 1 / the focal length of the lens used i.e. 50mm lens, shutter speed should be 1/60 or faster, 100mm lens, shutter speed should be 1/100 or faster (higher).



Exposing the media

Hold the camera steady: Camera “shake” is one of the primary causes of out of focus images.

Tripod / Monopod – can be used creatively for multiple or long exposures, for self portraits, any-time when you cannot be looking in the viewfinder, to relieve arm strain and to maintain eye contact with your subject!

Expose the media

Push the button! Think “squeeze” rather than “punch”

Make more exposures – practice!

Keep a record of what you did (type of lens, exposure readings, ISO, aperture, shutter speed, etc)

Notes:

ASSIGNMENTS:

1. Read manual for camera! Look for sections on Aperture and Shutter selection.
2. Use Auto or Program (possibly for the LAST TIME!)
3. Get Close! Photograph 4-5 images of something you feel strongly about.
4. Keep notes of what you are doing – Frame by frame – what aperture, what shutter speed.