

# 11. Basics of Photography

## Synopsis

This module provides an overview of the basics of photography..

## Lectures

- 11.1 Cameras
- 11.2 Aperture
- 11.3 Shutter Speed
- 11.4 Light
- 11.5 Composition
- 11.6 Creative Exercises

## 11.2 Aperture

### Aperture

The opening through which light enters the camera. The size of the aperture can be made smaller or bigger to reduce or increase the light that can enter. In a low light situation, one would typically open up the aperture to allow more light to enter and do the reverse under bright light conditions.

The aperture is not described in terms of its actual size, but in terms of its f-number (or f-stop). The f-stop is the ratio of the focal length of the lens to the diameter of the aperture, It is important to note that as the f-numbers increase, the size of the aperture decreases. When we say we are "stopping down the lens" that means we are increasing the f-number or decreasing the aperture area. If we are "opening up" the lens, this corresponds to decreasing the f-numbers or increasing the aperture area.

f-stops as they are typically marked on lenses are:

1 1.4 2 2.8 4 5.6 8 11 16 22 32

### Depth of field

There is another important factor that is linked to the choice of aperture – and that is called the depth of field. A small aperture gives a good depth of field; a bigger aperture gives a shallow depth of field. There also are times when you want the depth of field to be small; for example, if objects in the background of a photograph's subject would be distracting, it is common to have them so badly out of focus that they simply become a blur, allowing the image to emphasize the subject rather than the distracting background. In such a case you would want to open up the aperture (decrease the f-number)



Fig. 11.2.01  
The image has a good depth of field.



Fig. 11.2.02  
The image above has a shallow depth of field achieved by opening up the aperture.

## Assignment 2

### **Aperture and Depth of Field**

Shoot the same subject at different apertures. Keep a record of the apertures and shutter speeds. The technique of selective focusing is used to draw attention to the subject. A small depth of field helps in blurring out the background / foreground, thereby focusing attention on the subject.

1. Create images that have a large depth of field (from the closest point to infinity).
2. Create images that have a small depth of field with the subject in focus.