

ART 321 _ PHOTOGRAPHY II (Hybrid)

Week six activities:

A. Expanding Lighting options: UNDERSTANDING “ON CAMERA FLASH”

Studio lighting flash sources today are often smaller and more compact than they used to be. On camera strobe flashes for cameras are now very sophisticated in their circuitry and offer the photographer great creative flexibility. There are many photographers who rely largely on “on camera flashes” to perform their lighting functions in the studio. On camera flash is also widely used as a additional source of light in natural light environments :

MAJOR CONCEPTS FOR ON CAMERA FLASH

There are five distinguishing characteristics/properties for light meters. These characteristics help determine what specific light meter employed

A. On camera flash may take two forms:

1. Built in “on camera flash.” This type of flash is often found on modestly priced digital cameras. Since it is built into the camera it is always available and exposure is synced to your camera for maximum compatibility. Unfortunately, this type of flash is always **ON AXIS** with the subject being photographed which can lead to both “red eye” and glare explosions.
2. External flash devices are not built into the camera per se but may be coupled with it using the bracket above the pentaprism known as a “hot shoe.” External camera flashes come in many varieties - some very simple and others far more complex.

B. On camera flash with manual exposure:

Early 35mm SLR and later dSLR cameras relied on manual control of the flash. This required the operator knowing the Guide Number for their flash. A simple formula would then allow them to predict how far away a subject could be with that flash unit. The formula was:

$$GN = \text{Subject Distance from Flash Source} \times f/\text{Stop}$$

So if the GN of your flash was 40 and your subject was 10' from your camera the desired aperture setting (your shutter would be set to the cameras designated flash sync setting):

$$40 / 10 = f / 4$$

The correct aperture setting in this case would be f/4.

Here are links to two web sources regarding Guide Numbers:

<https://www.bhphotovideo.com/explora/photography/tips-and-solutions/understanding-guide-numbers>

<https://imaging.nikon.com/lineup/dslr/basics/24/02.htm>

- C. Many more modern flash devices allow for automatic flash settings based on electronic connections between the flash device (flash head) and the camera itself. Particularly popular in this regard is the E-TTL format for flash exposure. We will discuss this concept during class time and demonstrate the use of the Canon Speed Lite flash .

<https://www.youtube.com/watch?v=gCoGS9ruiEk>

D. LIGHTING TERMS: Week six

GUIDE NUMBER (Flash)
ANGLE OF VIEW
DIFFUSION
EDGE LIGHT
FEATHERING THE LIGHT

E. Assignment Imaging sessions:

This final week will be devoted to completion of assignment three.

F. Non-imaging assignment elements

Complete **Lighting Tutorial 3** in Lighting Journal

Please see the instructions that accompany your Lighting Journal for completing this portion of your course work.