Automatic Electronic Flash

THESE FLASHES AND TECHNIQUES WORK WITH FILM & DIGITAL CAMERAS.
FLASH ASSIGNMENTS FOR PHOTOGRAPHY II REQUIRE A DEDICATED UNIT WITH TTL

SYNCHRONIZATION: All electronic flashes use "X" synchronization, and all hot shoes are "X". With focal plane shutters (most 35mm SLR's), shutter speeds faster than 1/60 will not give a full frame of flash exposure. Check your instruction manual for your fastest sync. speed.

AUTOMATIC FLASH: Most automatic flashes have one or more auto ranges which are controlled by a sensor which reads approximately a 12° circle in the center of the image. When the sensor detects enough light, the flash shuts down shortening flash duration to achieve correct exposure. Most units have thyristor circuitry which recycles the unused power shortening recycle time and prolonging battery life.
1] Set Shutter Speed to sync. speed or slower.
2] Select an auto range (usually color coded) and set the corresponding aperture.
Comments: The flash sensor takes into account varying distances and room sizes making it almost foolproof as long as subject is in center of picture. Keep reflective surfaces out or at obtuse angles. Check for proper exposure with "sufficient flash" feature.

TTL FLASH: **T**hrough **T**he **L**ens works only with newer, sophisticated cameras and dedicated flash units. Use as above except that the flash will read out a range for any aperture. This is the technique we will use for Photography II. SET THE FLASH TO TTL.
1] USE MANUAL and set the Shutter Speed to sync. speed or slower, 1/60 or slower.
2] Select an f-stop which is near wide open (E.G. f-5.6) The cameras exposure system will give you the proper exposure up to a certain distance based on ISO, f-stop and the power of the flash.
Comments: Most cameras will expose your scene properly and give a visual and audio warning if not.

AUTOMATIC FLASH TECHNIQUES: =non bouncing flashes

  DIFFUSED : Use white tissue paper over flash head. Use on automatic without compensation except that auto distance is decreased by 40%.

BOUNCE : Use on automatic and aim flash head <u>slightly less than half way</u> (on ceiling or wall) to subject. Check for proper exposure with "sufficient flash" feature.

BOUNCE WITH CARD: <u>Only when bouncing straight up</u>, include a white card on the back of flash head to fill in shadows created by flash and to supply catch light for eyes. Beige cards for warmth, and larger cards for a softer more frontal affect.

  OPEN FLASH: Set the f-stop according to the flash. Set the shutter according to the meter. This creates a picture illuminated by flash in the foreground and available light in the background instead of black. Do not use a speed faster than your flash sync. speed.