

Art 205

**E2: Camera Logic**

(25 Points)

Name: \_\_\_\_\_

ISO: \_\_\_\_\_

**Materials Needed:**

Digital SLR or equivalent camera, gray card, white balance device, your concentration, and 1 pen or pencil.

**Be sure and write down both the aperture and shutter speed for each frame of film.**

**Example:      Frame #1      Aperture 5.6 Shutter Speed      1/125 sec**

**Directions:**

1. This exercise should be done outside during daylight hours.
2. Use your Matrix or Evaluative Metering Mode unless stated otherwise.
3. Use Manual Shooting Mode unless stated otherwise.
4. Set your camera ISO to \_\_\_\_\_ for all shots shown below.
5. **For completion and credit, turn in this sheet and your labeled files on the server drop-box as directed.**

**If you cannot perform a certain function due to lighting limitations...cover your lens and shoot a blank. Write down "blank" in the shutter speed or aperture column. If you have a problem or a misfire, then make a note of it below the section you were shooting for.**

**A. Learning How a Gray Card Works**

Label files "**Lastname\_E2\_#\_section\_A.DNG (RAW extension)**"

<b>Step</b>	<b>Frame #</b>	<b>Aperture (f-stop)</b>	<b>Shutter Speed</b>
Look at the Black foam core provided. Point your camera directly at it. NO GRAY CARD. Meter according to built and light meter, and take picture.	1		1/125
Look at the Black foam core provided. Point your camera directly at it. This time, meter off gray card. Meter according to built and light meter on gray card, and take picture. Notice difference.	2		1/125
Look at the White foam core provided. Point your camera directly at it. NO GRAY CARD. Meter according to built and light meter, and take picture.	3		1/125
Look at the White foam core provided. Point your camera directly at it. This time, meter off gray card. Meter according to built and light meter on gray card, and take picture. Notice difference.	4		1/125

## B. Exposure And Bracketing

This section will demonstrate the look of a normal exposure, overexposure, and underexposure. This is called a **Bracket**. Pick a scene with a subject that is close to the camera, has a background, and contains both highlights and shadows (light and dark areas). Use your partner as the subject. Use the exact same scene for all steps in section B. Compose the image so that you see the upper half of your partner.

Label files “**Lastname\_E2\_#\_section\_B.DNG (RAW extension)**”

Step	Frame #	Aperture (f-stop)	Shutter Speed
Initial Exposure metered from gray card (N) <b>Take picture of gray card and white balance device.</b>	5 start	f-8	
Initial Exposure metered from gray card (N) Remove gray card and white balance device. Just shoot subject.	6 one finger	f-8	Same as frame #5
Overexpose initial 1 stop changing aperture (N+1)	7 two fingers		Same as frame #5
Overexpose initial 2 stops changing aperture (N+2)	8 three fingers		Same as frame #5
Underexpose initial 1 stop changing aperture (N-1)	9 four fingers		Same as frame #5
Underexpose initial 2 stops changing aperture (N-2)	10 five fingers		Same as frame #5

## C. Adjusting aperture and shutter speed for same exposure level (equivalent exposures)

Use the same scene for each blank in this section. Stay in the sun. Don't Move!  
Start with f-11 as your aperture. Use the shutter speed given by your light meter for proper exposure.

Label files “**Lastname\_E2\_#\_section\_C.DNG (RAW extension)**”

Step	Frame #	Aperture (f-stop)	Shutter Speed
Initial Exposure metered from gray card Shoot gray card <b>Take picture of gray card and white balance device.</b>	11	f-16	
Initial Exposure repeated Remove gray card and white balance device. Just shoot subject.	12	f-16	Same as frame #11
Same exposure level (adjust shutter speed according to wheel, check light-meter)	13	f-11	
Same exposure level (adjust shutter speed according to wheel, check light-meter)	14	f-8	
Same exposure level (adjust shutter speed according to wheel, check light-meter)	15	f-5.6	

### C. Backlit and Exposure

Place the subject (person) between the camera and the sun. Make sure lighting situation is backlit with strong light source behind subject.

Label files "**Lastname\_E2\_#\_section\_C.DNG (RAW extension)**"

	<b>Frame #</b>	<b>Aperture (f-stop)</b>	<b>Shutter Speed</b>
Meter entire scene in matrix or evaluative mode.	16		1/125
Meter by putting gray card up close to face, and meter directly off gray card. Step back, remove gray card, and shoot entire scene with those settings.	17		1/125
Meter by using Spot Mode. No gray card.	18		1/125