

INTRODUCTORY PHOTOGRAPHY

PHO 100 Section 001/002/003/004

Northern Arizona University Fall 2018

Assignment #5: EXPOSURE

✿ Overview

For this assignment, you will take pictures using the MANUAL settings on your camera. You will make 2 sets of pictures, maintaining the same overall exposure, observing how the look of the pictures changes as you vary shutter and aperture.

Keeping the “same overall exposure” means that you are allowing the same amount of light into the camera for each picture, so the pictures should appear to be the same brightness, not lighter or darker. The degree of blur and how much is in focus will change based on shutter and aperture, respectively.

Review the website shown in class if you need to: <http://camerasim.com/apps/original-camerasim/web/>. This link is also on BbLearn under the Resources tab.

✿ Instructions

STEP 1: Find two people willing to be photographed. Go outside in daylight to do this assignment.

STEP 2: Set your camera to MANUAL mode so that you can choose the shutter and the aperture.

STEP 3: Set your ISO to 200.

STEP 4: Arrange the subjects so that one person is in the near foreground, about 4-7 feet from you, with the other person in the far background. For this assignment, you can focus on either one of the subjects but remain consistent.

STEP 5: Start with the lowest *STANDARD* aperture setting your camera allows. This might be 2.8, 4 or 5.6 depending on your lens. *Remember, your camera might have aperture settings that are in-between the standard settings, but for this exercise we will focus only on the standard settings so that we know we're always varying the aperture by full stops.* See the diagram at the end of this handout if you are not sure what the standard apertures are. Do not change your focal length while shooting.

STEP 6: Write the first aperture you are using down on the worksheet provided at the end of this assignment.

STEP 7: Once you have set the aperture, adjust the shutter speed so that you have a “proper” exposure according to the camera meter. Then, adjust so that you are using one of the *STANDARD* shutter speeds listed on the handout.



(Note: A proper exposure would put the meter at zero. When you shift to a standard shutter speed, the meter might not be right at the “0” mark. That is okay.)

STEP 8: Write this corresponding shutter speed down in the space provided at the end of this assignment.

STEP 9: Take the picture.

STEP 10: Change the aperture by ONE FULL STOP, letting in one stop less light. Since you have now let in LESS light with the aperture, you will need to adjust the shutter speed by one full stop to compensate, letting in one stop MORE light. You do this by leaving the shutter open longer.

STEP 9: Take the next picture and write down the settings you use. (Hint: You can also work out all the remaining settings of shutter/aperture for each of the shots before you shoot just by using your handout from class.)

STEP 10: Repeat Steps 8 and 9 until you have reached the last aperture your camera will allow. You might get to such a slow shutter speed that you can't hand-hold the camera without blur. *Take note of the shutter speed where you are unable to hand-hold the camera effectively. In this case, use a tripod.*

NOTE: Assuming that the light did not change significantly, your pictures should have the same exposure throughout the whole assignment. Look to see how the depth of field changed.

STEP 11: Change your ISO to 800 and repeat the whole process.

You can shoot in B&W or color, but the pictures must be horizontal.

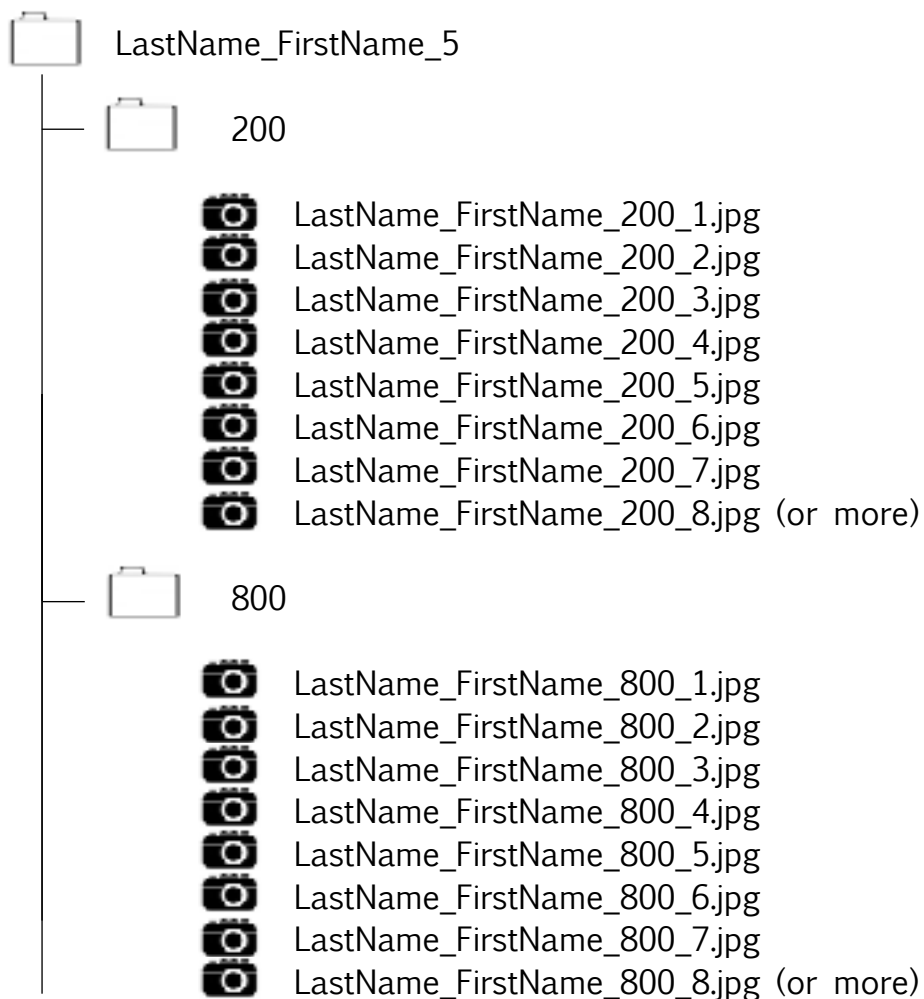
✿ DELIVERY

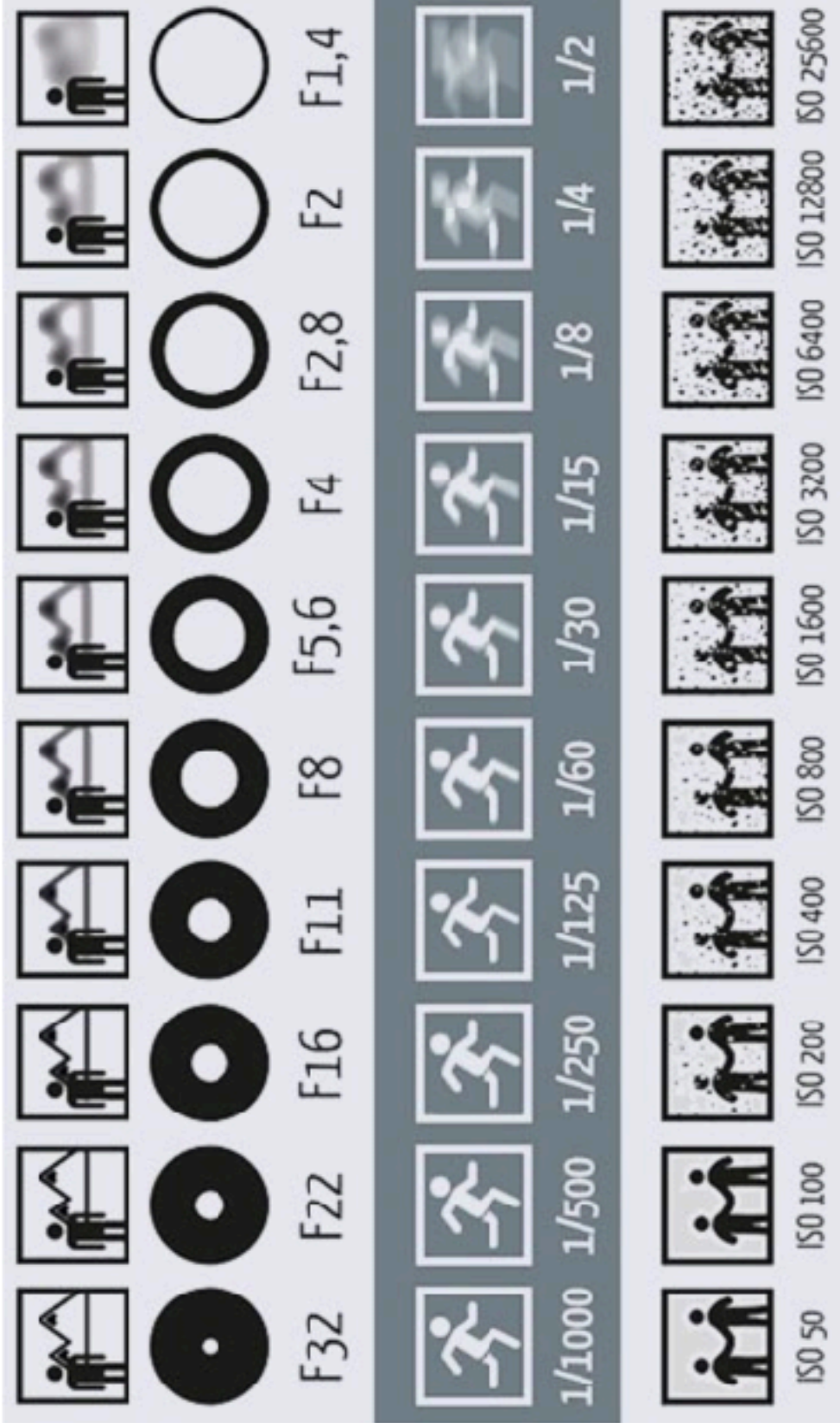
- (1) Add your name to the COPYRIGHT field.
- (2) EXPORT the pictures as high-quality JPEGs at 1200 pixels on the long edge in sRGB color space at 72 dpi resolution. **Use Lightroom to organize and export your pictures using naming and folder structures listed below.**

Drop your folder on the class server. Instructions for accessing the server are on BbLearn if you need them. Be sure to keep a copy of all original images for yourself!

DUE: ****Monday, October 8 by 9pm**** (NOTE: I will not take late work!)

FILE NAMING AND FOLDER STRUCTURE





FILL IN THE BLANKS:

NAME:

ISO 200		ISO 800	
aperture	shutter	aperture	shutter
$f1$			
$f1.4$			
$f2$			
$f2.8$			
$f4$			
$f5.6$			
$f8$			
$f11$			
$f16$			
$f22$			
$f32$			
$F45$			
$f64$			

ANSWER THESE QUESTIONS:

Circle the point at which you had trouble hand-holding your camera.

Look on your camera: Do you have the options for half-stops? third-stops?

What is the lowest ISO your camera lets you set?

What is the highest ISO your camera lets you set?

What is the lowest aperture that your lens allows? (Note: If you are using a zoom lens you will have two answers for this question depending on whether you are zoomed in or out.)