Overview

Mastering the Exposure Triangle is essential for capturing images with the desired brightness, detail, and mood. This assignment focuses on the interplay between aperture, shutter speed, and ISO, enabling photographers to achieve precise exposure in various shooting conditions.

Learning Objectives

- Understand the relationship between aperture, shutter speed, and ISO in the exposure triangle.
- Apply specific camera settings to achieve desired exposure in different lighting conditions.
- Analyze the effects of exposure adjustments on image quality and creativity.

Related Reading

Before you start, read these related blog posts to deepen your understanding:

What Is Exposure In Photography	What Is Iso In Photography	What Is Shutter Speed
What Is Depth Of Field	What Is Manual Exposure In Photography	What Is Dynamic Range In Photography

Before You Shoot

- ■ Familiarize yourself with your camera's manual exposure settings.
- ■ Choose a location with varied lighting to test exposure settings.
- ■ Prepare your camera with a fully charged battery and empty memory card.
- ■ Set your camera to manual mode to have full control over the exposure triangle.
- ■ Bring a tripod for stability, especially in low light conditions.

Assignment Tasks

1. Capture a portrait using a wide aperture (f/2.8), 1/125s shutter speed, ISO 400, in aperture priority mode to emphasize the subject.

2. Photograph a moving subject (like a car) with a fast shutter speed of 1/1000s, f/5.6, ISO 200 in shutter priority mode to freeze the action.

3. Create a long exposure of a waterfall at f/16, 4s, ISO 100 using a tripod and manual mode to blur the water motion.

4. Take a landscape shot with a balanced exposure using f/8, 1/60s, ISO 100 in manual mode to achieve a deep depth of field.

5. Experiment with low light conditions by shooting at f/1.8, 1/60s, ISO 1600 in manual mode to capture details without flash.

6. Capture a scene with high contrast using spot metering, settings of f/4, 1/125s, ISO 400, and adjust exposure compensation to +1.

Stretch Tasks

- Create a series of images using bracketing techniques to capture HDR, adjusting exposure settings for three shots: f/8, 1/30s, ISO 400; f/8, 1/60s, ISO 400; f/8, 1/125s, ISO 400.
- Experiment with panning techniques by using a slower shutter speed (e.g., 1/30s, f/8, ISO 200) while moving the camera with the subject.

DO / DON'T

DO	DON'T
✓ Do practice adjusting each element of the exposure triangle separately to see how it affects your images.	✗ Don't rely solely on automatic settings; practice using manual controls for better understanding.
✓ Do use a histogram to evaluate exposure and avoid clipping highlights and shadows.	✗ Don't ignore the impact of lighting on your exposure settings; assess the scene before shooting.
✓ Do experiment with different metering modes to see how they influence exposure.	✗ Don't hesitate to use exposure compensation if your images are consistently over or underexposed.
✓ Do bracket your shots in challenging lighting conditions to ensure you capture the best exposure.	✗ Don't forget to check your ISO settings before shooting in different lighting conditions.
✓ Do review your images on the camera's LCD to check exposure and make adjustments as necessary.	✗ Don't be afraid to experiment with unconventional settings; creativity often comes from breaking the rules.

Reflection Questions

- How do changes in aperture affect the overall composition of your images?
- What challenges did you face while mastering the exposure triangle, and how did you overcome them?
- In what scenarios did you find yourself using exposure compensation, and what were the results?
- How does understanding the exposure triangle enhance your creative expression in photography?

Technical & Creative Focus

Technical:

- Use aperture priority mode (Av or A) to control depth of field while letting the camera adjust shutter speed automatically. Example: f/4, ISO 200.
- Experiment with shutter speed priority mode (Tv or S) to freeze or blur motion. Example: 1/500s, f/5.6, ISO 400.
- Adjust ISO settings to manage noise levels in your images. High ISO (e.g., ISO 1600) can be used in low light, while low ISO (e.g., ISO 100) is ideal for bright conditions.
- Use spot metering to ensure proper exposure on your subject, especially in high-contrast scenes. Example: f/2.8, 1/125s, ISO 800.
- Incorporate exposure compensation to fine-tune your exposure in tricky lighting. Example: +1 stop, f/5.6, 1/60s, ISO 400.

Creative:

- Use a wide aperture (e.g., f/1.8) to create a shallow depth of field for portraits, isolating the subject from the background.
- Experiment with long exposure photography (e.g., 10s, f/11, ISO 100) to capture motion in landscapes, such as flowing water.
- Utilize a fast shutter speed (e.g., 1/1000s, f/4, ISO 200) to capture fast-moving subjects, like sports or wildlife.

• Play with high dynamic range (HDR) techniques by bracketing exposures (e.g., f/8, 1/30s, ISO 400 and f/8, 1/250s, ISO 400).

• In low light, increase ISO and use a wider aperture to maintain a fast shutter speed, preventing motion blur.