Overview

Mastering the Exposure Triangle is essential for photographers who want to have full control over their images' brightness, depth of field, and motion blur. This assignment focuses on practical applications of aperture, shutter speed, and ISO to achieve the desired exposure in various shooting conditions.

Learning Objectives

- Understand the relationship between aperture, shutter speed, and ISO in achieving correct exposure.
- Apply different camera settings to manipulate depth of field and motion blur.
- Evaluate exposure using histograms and metering modes for optimal results.

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

- ■ Ensure your camera battery is fully charged and memory card has sufficient space.
- ■ Familiarize yourself with your camera's manual settings and how to adjust aperture, shutter speed, and ISO.
- ■ Choose a location with varying light conditions to practice exposure settings.
- ■ Set your camera to manual mode to gain complete control over exposure settings.
- ■ Bring a tripod for stability, especially in low light conditions where slower shutter speeds are used.

Assignment Tasks

1. Capture a portrait of a person outdoors using aperture priority mode at f/2.8, 1/125s, ISO 200 to achieve a blurred background.

2. Photograph a moving vehicle on a street using shutter priority mode at 1/500s, f/8, ISO 100 to freeze the action while maintaining detail.

3. Take a landscape shot at sunrise using manual mode with settings f/11, 1/30s, ISO 100 to ensure a well-exposed image with depth.

4. Shoot a night scene with city lights using long exposure settings: f/16, 10s, ISO 100 to capture light trails and star movements.

5. Experiment with indoor photography using available light: f/4, 1/60s, ISO 800 to capture a well-lit image without flash.

6. Create a high-contrast black-and-white image by shooting at f/5.6, 1/125s, ISO 400 in harsh sunlight to play with shadows and highlights.

Stretch Tasks

- Create a series of images using bracketing techniques: Capture three exposures of the same scene at f/4, 1/250s, ISO 100, f/4, 1/60s, ISO 100, and f/4, 1/15s, ISO 100 to explore dynamic range.
- Shoot a time-lapse video of a sunset using manual settings: f/8, 1/30s, ISO 200, adjusting exposure as the light changes.

DO / DON'T

DO	DON'T
✓ Do experiment with different exposure settings to understand their impact on your images.	✗ Don't rely solely on automatic settings; learn to use manual controls for better exposure mastery.
✓ Do use a tripod when shooting in low light to prevent camera shake.	✗ Don't ignore the importance of lighting; always assess the light quality and direction before shooting.
✓ Do review your histogram after each shot to ensure you are not losing detail in highlights or shadows.	✗ Don't be afraid to adjust ISO settings; higher ISO can be beneficial in low light situations.
✓ Do practice using different metering modes to see how they affect exposure in various scenes.	✗ Don't forget to check your camera's white balance settings to avoid unwanted color casts.
✓ Do analyze your images post-shoot to identify areas for improvement in exposure techniques.	✗ Don't skip the use of exposure compensation in tricky lighting situations; it can save your shot.

Reflection Questions

- How did varying your aperture settings affect the depth of field in your images?
- What challenges did you face when adjusting shutter speed for motion capture?
- How did changing ISO settings influence the noise levels in your photographs?
- In what situations did you find exposure compensation most useful, and why?

Technical & Creative Focus

Technical:

- Use aperture settings to control depth of field: Shoot at f/2.8 for shallow depth focusing on a subject with a blurred background.
- Adjust shutter speed to capture motion: Use 1/500s for freezing fast action, like a bird in flight.
- Set ISO appropriately for lighting conditions: Use ISO 100 in bright daylight to minimize noise.
- Utilize exposure compensation to adjust brightness: Set exposure compensation to +1 in backlit conditions to prevent silhouettes.
- Employ metering modes effectively: Use spot metering to ensure your subject is correctly exposed in high-contrast scenes.

Creative:

- Experiment with low aperture settings (e.g., f/1.8) in portrait photography to create a soft bokeh effect.
- Use high shutter speeds (e.g., 1/1000s) to capture sports or wildlife in action, ensuring sharp images.
- Play with high ISO settings (e.g., ISO 1600) in low light to achieve a grainy aesthetic that can enhance storytelling.
- Incorporate long exposure techniques (e.g., f/16, 1s, ISO 100) to create silky water effects in landscape photography.
- Combine different exposure settings to create dynamic images: Shoot at f/4, 1/250s, ISO 400 to balance depth of field and motion.