



Overview

The Exposure Triangle Mastery assignment focuses on understanding and manipulating the three fundamental elements of exposure: aperture, shutter speed, and ISO. Mastering these elements enables photographers to achieve the desired brightness and mood in their images, ensuring creative expression is accurately conveyed.

Learning Objectives

- Understand the relationship between aperture, shutter speed, and ISO in the exposure triangle.
- Apply manual settings to achieve correct exposure in various lighting conditions.
- Evaluate the impact of different settings on image quality and artistic expression.

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 mode and settings.
- Select a location with varying light conditions to test exposure settings.
- Prepare a notebook or digital device to record your settings and outcomes.
- Check your camera's battery and memory card to ensure they are sufficient for the shoot.
- Set your camera to shoot in RAW format for better post-processing flexibility.

Assignment Tasks

1. Photograph a landscape during golden hour at f/11, 1/125s, ISO 100 to capture vibrant colors and details.
2. Shoot a portrait with a blurred background at f/2.8, 1/200s, ISO 400 to emphasize the subject's features.
3. Capture a fast-moving subject, like a bird in flight, at f/5.6, 1/1000s, ISO 800 to freeze motion effectively.
4. Take a night scene photo at f/4, 1/30s, ISO 1600 to balance light and detail without too much noise.
5. Experiment with long exposure photography at f/16, 30s, ISO 100 to create smooth water effects in a waterfall.
6. Shoot a street scene with varied lighting at f/5.6, 1/250s, ISO 400 to capture the essence of urban life.

Stretch Tasks

- Create a time-lapse video by capturing images at f/8, 1/100s, ISO 200 over several hours, adjusting settings as light changes.
- Photograph a moving vehicle at night using a slow shutter speed of 1/15s, f/4, ISO 800 to create light trails.



DO / DON'T

DO

- ✓ Do experiment with different aperture settings to see their effect on depth of field.
- ✓ Do utilize a tripod for long exposure tasks to maintain stability and sharpness.
- ✓ Do analyze your histogram after each shot to ensure proper exposure.
- ✓ Do practice shooting in manual mode to gain full control over the exposure triangle.
- ✓ Do review your settings and outcomes regularly to identify patterns and improve.

DON'T

- ✗ Don't rely solely on automatic settings; learn to use manual settings for better control.
- ✗ Don't ignore the importance of a good metering mode for accurate exposure.
- ✗ Don't forget to check your white balance settings, as they can affect the mood of your images.
- ✗ Don't shoot in low light without stabilizing your camera or using a higher ISO.
- ✗ Don't dismiss the importance of exposure compensation when shooting in challenging lighting.

Reflection Questions

- How did changing the aperture affect the overall exposure and mood of your images?
- What challenges did you encounter when adjusting shutter speed in different lighting conditions?
- In what ways did your understanding of ISO influence your creative choices?
- How did using exposure compensation change the outcome of your photographs?

Technical & Creative Focus

Technical:

- Use manual mode (M) to control aperture (f/4), shutter speed (1/250s), and ISO (200) for balanced exposure in daylight.
- Experiment with aperture priority mode (Av) at f/2.8, allowing the camera to adjust shutter speed, typically around 1/500s, while keeping ISO at 100 in bright conditions.
- In low light, switch to shutter priority mode (Tv) at 1/60s, set ISO to 1600, and adjust aperture to f/5.6 for a well-exposed image.
- Utilize spot metering to focus on a specific subject, setting your camera to f/5.6, 1/125s, ISO 400 to capture details in both highlights and shadows.
- Employ exposure compensation (+1 EV) while in aperture priority mode at f/8, 1/60s, ISO 800 to brighten images in backlit situations.

Creative:

- Explore shallow depth of field by shooting at f/1.8, isolating your subject against a blurred background.
- Capture motion blur by setting a slower shutter speed of 1/30s while panning with a moving subject at f/4, ISO 400.
- Experiment with high dynamic range (HDR) by taking three bracketed exposures at f/8, ISO 100, using shutter speeds of 1/250s, 1/60s, and 1/15s.
- Create a starburst effect by using a small aperture (f/16) and a shutter speed of 1/200s, ISO 200 while photographing lights at night.



- Utilize the inverse exposure triangle concept by adjusting ISO first, then aperture and shutter speed to achieve the desired exposure creatively.