



Overview

This assignment focuses on understanding how ISO impacts image quality and noise levels in photography. Students will practice using ISO settings in conjunction with aperture or shutter priority modes to achieve optimal exposure while managing noise.

Learning Objectives

- Understand the relationship between ISO, exposure, and noise.
- Develop skills to control noise through appropriate ISO settings.
- Practice using priority modes to enhance creative expression in varying lighting conditions.

Related Reading

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

What Is Iso In Photography	Exposure Bracketing A Guide For Photographers	
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Before You Shoot

- Choose a location with varying light conditions (e.g., shaded areas and bright sunlight).
- Ensure your camera battery is fully charged.
- Select a lens that allows for a wide aperture (e.g., f/1.8 or f/2.8).
- Familiarize yourself with your camera's menu to adjust ISO settings quickly.
- Set your camera to either aperture priority or shutter priority mode.

Assignment Tasks

1. Use aperture priority mode at f/2.8 with ISO 200 fixed, letting the camera adjust shutter speed to capture a portrait in a shaded area.
2. Set your camera to shutter priority mode at 1/250s with ISO 200 fixed, allowing the camera to adjust aperture to freeze motion during a sporting event.
3. In a low-light environment, switch to aperture priority mode at f/4 with ISO 1600 fixed, letting the camera set the shutter speed to maintain exposure.
4. Capture a scene in bright sunlight using aperture priority mode at f/11 with ISO 200 fixed, allowing the camera to adjust shutter speed for a correct exposure.
5. Use shutter priority mode at 1/60s with ISO 400 fixed, letting the camera adjust aperture to capture a moving subject in an indoor setting.
6. Set your camera to aperture priority mode at f/1.8 with ISO 800 fixed, letting the camera adjust shutter speed to create a shallow depth of field in a dimly lit environment.

Stretch Tasks

- Shoot a series of images at ISO settings ranging from 100 to 3200 in varying light conditions, analyzing noise levels in post-processing.
- Create a diptych comparing images taken at low ISO (200) and high ISO (1600) to showcase the differences in noise and detail.



DO / DON'T

DO	DON'T
<ul style="list-style-type: none">✓ Do adjust ISO settings based on the available light and desired image quality.✓ Do review and analyze your images for noise after each shooting session.✓ Do practice using both aperture and shutter priority modes to understand their impact on ISO.✓ Do explore different lighting scenarios to see how ISO affects your images.✓ Do take notes on your settings and results for future reference.	<ul style="list-style-type: none">✗ Don't shoot in full manual mode and specify all three exposure variables.✗ Don't ignore the impact of noise at higher ISO settings.✗ Don't assume that higher ISO always results in better images.✗ Don't forget to check your histogram after shooting to evaluate exposure.✗ Don't hesitate to experiment with different ISO settings in various lighting conditions.

Reflection Questions

- How does changing ISO affect the overall mood of your images?
- What differences did you notice in image quality when shooting at high ISO versus low ISO?
- In what scenarios do you think a higher ISO is justified despite increased noise?
- How did using priority modes change your approach to managing ISO and noise?

Technical & Creative Focus

Technical:

- Use a fixed ISO setting (e.g., ISO 200 or ISO 400) to evaluate noise levels.
- Experiment with different ISO settings to identify the cleanest results in various lighting.
- Understand the differences in noise characteristics at lower vs. higher ISO settings.
- Pay attention to the histogram to evaluate exposure and noise levels.
- Review images at 100% zoom to assess noise impact on detail.

Creative:

- Use aperture priority mode to create depth of field while managing ISO and noise.
- Explore shutter priority mode to capture motion, adjusting ISO for exposure.
- Experiment with high ISO settings in low light to see how noise affects mood and atmosphere.
- Utilize a consistent subject across different lighting conditions to compare results.
- Think creatively about how noise can be used artistically in your images.