Overview

This assignment focuses on mastering ISO settings and managing noise in photography. By utilizing aperture and shutter priority modes, students will learn how to control exposure while minimizing noise in different lighting conditions.

Learning Objectives

- Understand the relationship between ISO, noise, and exposure.
- Develop skills in using aperture and shutter priority modes effectively.
- Learn strategies to maintain image quality while adapting to various lighting environments.

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	

Before You Shoot

- ■ Familiarize yourself with your camera's aperture and shutter priority modes.
- ■ Select a location with varying lighting conditions (e.g., indoors, outdoors at dusk).
- ■ Prepare your camera by setting it to aperture or shutter priority mode.
- ■ Charge your camera battery and ensure you have sufficient memory card space.
- ■ Set your camera to a fixed ISO (e.g., ISO 200) prior to shooting.

Assignment Tasks

1. Use aperture priority mode at f/2.8 with ISO 200 fixed, letting the camera set shutter speed for depth of field control in a low-light setting.

2. Use shutter priority mode at 1/500s with ISO 200 fixed, allowing the camera to adjust aperture for freezing motion in bright daylight.

3. Shoot in aperture priority mode at f/4 with ISO 200 fixed during golden hour, capturing the warm light while monitoring noise levels.

4. In a dimly lit room, use aperture priority mode at f/1.8 with ISO 200 fixed, allowing the camera to select the shutter speed for optimal exposure.

5. Use shutter priority mode at 1/60s with ISO 200 fixed to capture a moving subject indoors, observing how noise affects the image quality.

6. Experiment with aperture priority mode at f/5.6 with ISO 200 fixed during twilight, documenting changes in noise as the light decreases.

Stretch Tasks

- Shoot a series of images at various ISO settings (200, 800, 1600) in a controlled environment, then compare the noise levels in each image.
- Create a photo series focusing on low light situations using only shutter priority mode, documenting how noise impacts your subjects.

DO / DON'T

DO	DON'T
✓ Do adjust your aperture and shutter speed creatively while keeping ISO fixed.	✗ Don't manually set all three exposure settings at once; use priority modes instead.
✓ Do practice in various lighting conditions to see how ISO affects your images.	✗ Don't ignore the effects of high ISO on image quality; observe and learn.
✓ Do regularly check your camera settings to ensure ISO is set as intended.	✗ Don't shoot in excessively low light without understanding how it affects noise.
✓ Do take notes on the noise levels observed at different ISOs in various scenarios.	✗ Don't forget to review your images for noise levels and exposure adjustments.
✓ Do utilize post-processing software to manage noise in your photos.	✗ Don't limit your practice to only one type of lighting condition; explore diverse environments.

Reflection Questions

- How did your choice of ISO impact the noise levels in your images?
- What challenges did you face while shooting with a fixed ISO in varying light conditions?
- In what situations did you find it difficult to balance exposure and noise?
- How can you apply the lessons learned about ISO and noise control in future photography sessions?

Technical & Creative Focus

Technical:

- Use a low base ISO to achieve cleaner images, especially in bright conditions.
- Select a suitable aperture to control depth of field while keeping ISO fixed.
- Understand the impact of high ISO settings on image quality and noise levels.
- Monitor shutter speed to ensure it is appropriate for the action or subject.
- Experiment with different lighting environments to observe noise variations.

Creative:

- Explore different aperture settings to create bokeh effects while controlling noise.
- Use shutter speeds creatively to capture motion while managing ISO levels.
- Seek interesting subjects in low light to challenge your noise control skills.
- Combine natural light with artificial light to see how it affects ISO performance.
- Experiment with post-processing techniques to reduce noise in your final images.