

Syllabus

Spring 2008

ART 234 - Introduction to Digital Photography Digital SLR and Advanced Amateur Digital Cameras

Course Description:

This class is designed to provide students with the fundamentals of digital photography. Basic principles of photography will be discussed as well as: digital camera operation, controls, function and purpose, lighting, composition, available (recommended) hardware and software.

Learning Outcomes:

Upon completion of the requirements of this course, the student should be able to:

1. Understand the basic principles of photography, including: exposure, shutter speed, aperture, ISO, depth of field, lighting and composition. Understand the camera, lenses and other accessories.
2. Understand technology as applied to digital imaging, including: white balance, file formats (.jpeg, .tiff, RAW, NEFF, etc.), dynamic range, file transfer, file storage, care of digital storage media, image resolution, working with digital images and various image editing software.
3. Use digital images in presentations.
4. Capture digital images for class discussion.

Materials Required:

1. A Digital camera –Digital Single Lens Reflex Camera (SLR, interchangeable lenses) *Examples: Nikon D70, D200, Canon 30D, Digital Rebel, Sony Alpha, Pentax D100, Olympus 300, etc.*
or an advanced, adjustable Point-and-Shoot digital camera(Must be able to adjust **SHUTTER SPEED, APERTURE and ISO**).
2. Digital media – e.g. – Compact Flash (CF) card, Secure Digital (SD) card, or other appropriate media for the camera in use.
3. Tripod (optional, but useful!)
4. Electronic Flash (optional, but useful!)
5. Access to printer or ability to have prints made for some assignments.
6. Please bring the manual for your camera to the first class!

Text(s):

1. “Understanding Exposure”(revised edition); Bryan Peterson, pub. 2004, ISBN 0-8174-6300-3 (paperback)
2. *“PC Photo Digital SLR Handbook”; Rob Sheppard, pub. 2005

ISBN 1-57990-602-8 (paperback)

**Optional*

Course Schedule

Week 1:

Introductions. Discussion of course content, goals and objectives, expectations and grading structure.

Brief history of photography, including digital. Discussion of camera types, lenses, accessories.

Getting to know your camera – the controls & what they mean.

Discussion of the “tools” and fundamentals of capturing an image. exposure, shutter speed, aperture and the lens, light meter, camera care, sensor care. Media and care of digital media.

Assignment 1: Automatic and Program exposure modes.

Reading: Peterson: 9-33

Week 2:

Review of Assignment 1. Critique and evaluate student photos of Automatic/Program mode assignment.

Shutter Speed. Capturing motion, stopping action, how shutter speed affects capturing images. Creative uses of varying the shutter speed. Using tripods and/or other means of stabilizing the camera.

Assignment 2: Shutter Speed exercises.

Reading: Peterson: 72-91

Week 3:

Review shutter speed assignment. Critique and evaluate student Photos from Week 2.

Aperture, lenses and depth of field. Isolating the subject by use of selective aperture. Focal length and use of lenses.

Assignment 3: Aperture.

Reading: Peterson: 36-69

Week 4:

Review aperture assignment. Critique and evaluate student photos from Week 3.

Exposure – how shutter speed and aperture are related, varying exposure in automatic modes and in manual modes.

Assignment 4 – shooting photos in the manual mode.

Peterson: Review 9-91

- Week 5 Review Manual Mode assignment. Critique and evaluate student photos from Week 4. Resolution, dynamic range, file types. White Balance – automatic white balance, pre-set white balance, custom white balance and color temperature. Assignment 5 – Selecting manual white balance modes. Using Various ISO settings and different file types.
- Week 6 Review ISO/White Balance assignment. Critique and evaluate Student photos from Week 5. Storing digital images. Transferring, emailing and manipulating digital images. Composition: rule of thirds, using lines, framing the subject(s), cropping, working with various file types on the computer. Basic JPEG Editing & Re-sizing, Various “types” of pictures. Assignment 6 – Composition.
- Peterson: 154-158
- Week 7 Review composition. Critique and evaluate student photos from Week 6. Electronic flash. Selecting, using advanced techniques. Special effects in digital photography with and without electronic flash. Filters and accessories. Using editing software. Assignment 7 – Electronic flash.
- Peterson: 132, 144-149, 150-1
- Week 8 Review electronic flash assignment. Critique and evaluate student photos from Week 7. Advanced techniques - overview. Discussion of uses of digital images. Overview and discussion of major elements of previous sessions and Q & A session.