# Syllabus ART 234 - Introduction to Digital Photography

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## **Course Description:**

This class is designed to provide students with the fundamentals of digital photography, from capturing images digitally and editing those images to using the images for display, presentation and sharing. The basic principles of photography will be discussed as well: 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 D5100, D300, Canon 60D, Digital Rebel, Sony Alpha, Pentax D100, Olympus 300, etc.* or an adjustable Point-and-Shoot digital camera (Must be able to adjust SHUTTER SPEED, APERTURE and ISO) (and have fresh/charged batteries).
- 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 <u>very</u> useful!).
- 4. Electronic Flash (optional, but useful!).
- 5. Please <u>always</u> bring the manual, memory card(s) and freshly charged batteries for your camera to every class!

#### Text:

"The Beginner's Photography Guide" 2<sup>nd</sup> Edition (Chris Gatcum, ©2013 DK, ISBN 978-1-4654-4966-5

#### **Detailed Content:**

An introduction to the fundamentals of digital photography, including the operation of digital cameras and related hardware, the uses of the various digital media, and the basic functions of image editing software. Additional topics will include basic principles of photographic aesthetics and composition, and the history of photography. Course content will consist of lectures and demonstrations, with an emphasis on hands-on learning through the application of digital techniques to sample photographs and to the student's own work. Upon satisfactory completion of the course, the student will have the requisite knowledge to determine the appropriate equipment, materials, and software to meet their basic photographic requirements. The student will know the basic functions and capabilities of common digital devices and software, and the skills required to utilize those functions and capabilities.

# **Course Schedule**

# DAY 1 Assignment-July 22: Bring six (6) photos taken within a week of the first class:

Two (2) "people" pictures

Two (2) pictures of a tall building

Two (2) pictures of something moving fast

Leave all six pictures on your memory card and bring with your camera to the first class and with a charged battery!

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. Transferring images – the "Computer-camera interface". Computer programs used in imaging. Discussion of six assignment photos.

Assignment for Day 2: Automatic and Program exposure modes.

See Assignment Handout: "The Alphabet" & other shots

Reading: Text: 9-41, 102-118, Equipment & lenses

DAY 2: MODES **Modes**: Exploring the Program, Shutter Priority, Aperture Priority and Manual modes, as well as discussing the other fully automatic modes. When and why to use each of the selectable modes. Exposure Compensation - how and when to use. White Balance and Picture/Color Controls.

Assignment for DAY 3: Shooting in the various modes. Reading: Text: 42-77, Modes, Histogram **DAY 3: SHUTTER** SPEED

Review of Assignment 2. Critique and evaluate student photos of "MODES" 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. Introduction to image editing & file manipulation.

**Assignment for DAY 4:** Shutter Speed, White Balance and

Picture style/color control exercises.

Text: 62-72, 122-128. Shutter Speed & Reading:

White Balance/Color Temperature

**DAY 4:** PRIORITY

Review shutter speed assignment. Critique and evaluate student **APERTURE** Photos from DAY 2. Aperture, lenses and depth of field. Isolating the subject by using the aperture, lenses and depth of field. Focal length and use of lenses.

> **Assignment for DAY 5:** Aperture. Reading: **Text: 54-60**

**DAY 5**: Review aperture assignment. Critique and evaluate student

MANUAL photos from DAY 4. Exposure – how shutter speed and aperture are MODE & related, varying exposure in automatic modes and in manual modes.

More on Exposure Compensation. Exposure Mid-Term Ouiz.

Assignment for DAY 6: Shooting photos in the manual mode Compensation

& Using Exposure Compensation.

Reading: Text: 74-5, 80-83

**DAY 6:** Review of Manual Mode/Exposure Compensation Assignment.

**Composition,** Critique and evaluate student photos from DAY 5.

Composition and composition Techniques. Electronic Flash – using flash Flash & For main light and fill flash. Balancing existing (ambient) light with FINAL

flash. **PROJECT** 

DISCUSSION **Assignment for DAY 7: Composition assignment** Electronic flash assignment, Final Project Review

> 122-162, 168 Reading: **Text:**

Q & A Session, Review, Final Project review & Final Exam. Q & A **Day 7:** Session.

**Course Grade** will be based on a point system:

1). DAILY shooting assignments 413 points 2). Mid-term Quiz 90 points 105 points 3). Final Exam 4). Class participation & attendance -160 points

> **Total Possible Points:** 768 points