

Introduction to Digital Photography and Digital Image Editing with Adobe® Photoshop™

by

Jim Kilkelly
Grades 6- 12 and Continuing Education
Minneapolis, MN

Introduction

As all photographers who have worked with digital cameras since their introduction in the 1990's know, digital camera technology and pricing changes rapidly so it is futile to recommend any specific camera or digital imaging equipment. For this reason, the concentration of this course is on understanding the basic concepts of digital photography. This will enable the digital camera user to purchase and master the cameras that will best suit their needs, no matter what the state of technology may be at any given time.



Jim Kilkelly

Jim Kilkelly Statement

Recently, at an outdoor picnic I got into a conversation with one of the guests about why I became a professional photographer. It was hard to explain the allure of exploring images and the effects of light to someone with no vocabulary or training in the subject. Then I looked up and spotted an interesting scene right in front of us, with shifting light creating geometric shadows on a boat by the old red barn. I picked up the digital camera in my lap, shot the scene, and using the LCD screen on the camera could immediately explain why I was attracted by that image, ideas that had been so hard to convey using words alone. (Illustration to the left shows Jim Kilkelly shooting with the first Kodak Digital Camera Prototype.)

This is a perfect example of the main advantage of digital photography, which is its' immediacy.

The primary principle when learning photography is to take many pictures. Never take just one. When you think a few is enough, take a dozen. Traditional photography requires a wait between the taking of a picture and the development of the film for viewing. With digital photography, the ability to immediately view and edit images gives us the freedom to make mistakes and to quickly learn from them. For this reason, digital photography supports the primary requirement for mastering photography, which is to take many pictures.



“Barn and Boat”

Another advantage of digital photography is its relatively low cost when compared to traditional photography. Traditional film based photographs had to be processed or sent to the lab which could take days and incur substantial film and processing costs. Polaroid photography offers immediacy but the film is costly so it is not an acceptable alternative for the average photographer. By comparison, digital photo media can be used and reused endlessly which significantly cuts down on the cost. Cost control is the second advantage of digital photography.

Some people are perfectly happy taking pictures and living with what the lab sends back. But there are other photographers who want to have more control over the processes that produce the final image.

This brings us to the third point regarding the advantages of digital imaging, which is the ability to optimize and/or manipulate images.

With digital imaging, there are tremendous choices for image enhancement and control. In the traditional darkroom the learning curve is long and costly. The digital darkroom, which is a computer image editing program such as Adobe Photoshop or Photoshop Elements, offers the opportunity to explore creative options quickly and at little material cost.

All in all, digital photography is an excellent choice for those who are learning photography. Though it is still necessary to learn all the traditional things about how to take a picture; and what makes a good picture in terms of technique, content and form; the time required to learn these skills is greatly condensed through the use of digital imaging.

Course Objectives

As a guide to getting started in digital photography this course will cover computer concepts that accompany the study of digital

cameras and a basic understanding of the principles of a digital camera. The basics of shooting successful pictures with a digital camera will reference some tips from traditional photography and highlight how traditional photography applies to the digital shoot. Also covered will be an introduction to image correction in the computer and creating a digital print of a digital photo. These topics and shooting assignments offer a thorough approach to helping students and digital imaging beginners get a handle on digital photography.

Some lessons will reference on-line resources that will most likely evolve in keeping with the changes in the technology. These references should be researched and reported on for each lesson. Also, by continuing to refer to these sites, student can continue to update their knowledge and build their expertise.

A comprehensive list of additional reference materials addressing a wide range of issues, tools and techniques is provided in this workbook. After mastering the basics, these numerous resources will help new users move on to more sophisticated projects.

Hardware:

1. Computer specifications are best assessed by reviewing the requirements specified by digital imaging software you will be using.
2. Additional information on digital imaging can be obtained through Adobe Education web resources at www.adobe.com/education.

Introduction to Digital Photography Software:

1. Adobe Photoshop Elements, Intended for the web and digital printing. Does not contain pre-press settings and tools
2. Adobe Photoshop CS, Has the ability to open digital camera raw files directly from the camera into the application
3. Adobe Photoshop Album 2
4. iCorrect Plug-in, by Picto Color Corporation, <http://www.picto.com/editlab/default.htm>
5. Nik Sharpener Plug-in, by Nik Multimedia Inc., <http://www.nikmultimedia.com/company/usa/entry.php>