



Digital Photography Seminar

by David Drake

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General Information

- The main source of all information presented came from attending a Nikon School of Photography plus years of experience as TI's photographer.
- Remember, there are many ways to accomplish tasks in photography.
- Please use this handout and refer to these notes in your photography adventures.



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Topics

- **Enhancing Your Pictures:** Getting the most from your digital camera and it's advanced features
- **Taking Pictures:** How to capture great digital photos (How to "Compose" the picture)
- **Storing & Organizing Photos:** Workflow management, file formats, capture software, and processes for image output & storage
- **Enhancing Your Images:** Crop resize and manipulate your digital pictures - adjust color and tone to improve your pictures
- **Printing & Sharing Your Photos:** How to make great prints of your favorite photos



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Enhancing Your Pictures

- **F/Stops (lens openings/apertures).** Remember, the higher the number, the smaller the lens opening.
- **Depth of field is controlled by F/Stops:**
 - Large opening = shallow depth of field
 - Small opening = large depth of field
- **Shutter speeds:** 1, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{15}$, $\frac{1}{30}$, $\frac{1}{60}$, $\frac{1}{125}$, $\frac{1}{250}$, $\frac{1}{500}$, $\frac{1}{1000}$ (amount of time light takes to hit the CCD arrays).
- **Aperture/speed priority:** camera settings for special events.
- **Fill-flash:** Use to prevent shadows in bright sunlight pictures. Always use “fill-flash” to remove shadows.

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Enhancing Your Pictures (continued)

Wrong



Fill-flash effects.

Right





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Enhancing Your Pictures (continued)

- **White balance** means less work for you – Important to know how to adjust on your camera. (White balance is an adjustment to get the color you want.)
- **File types:**
 - **RAW** (not processed)
 - **TIFF** (not compressed)
 - **JPEG** (compressed)
- **Sensitivity (ISO):** High ISO needs less light to capture the picture but high ISO could cause a “grainy” picture.



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Enhancing Your Pictures (continued)

- **Digital Cameras – You don't need a digital camera that captures more than 8 MB of resolution unless you are creating a billboard. A 2-6 MB camera will provide you a great picture. (Obviously, the higher the resolution the bigger the picture you can capture but the more memory that is needed.)**
- **Image Quality – Use high quality for printing, low quality for web pages. (High quality uses more disk space.)**
- **Camera menus were created for a reason. Get familiar with your camera's functions via the owner's manual.**



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Taking Pictures

- **Must haves are:**
 - spare batteries,
 - lens cleaner,
 - extra storage disks and
 - your camera's Instruction Manual.

Highly recommended are Sanyo "Eneloop" rechargeable batteries which are available at:

<http://www.eneloop.info/home/the-new-improved-eneloop.html>

These low, self-discharge nickel-metal hydride battery (LSD NiMH) were developed by Sanyo, who named them "Eneloop". This kind of battery reduces self-discharge and, therefore, lengthens shelf life compared to normal NiMH batteries.



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Taking Pictures (continued)

- Plan, plan, plan ahead.
- Make a list of poses for your photo shoot and ask subjects if they have some pose in mind.
- Look for something unique like their eyes, hands, clothes, surroundings, elevations, pets, etc.
- Use a support when taking pictures at speeds < 60th sec (tripod, tree branch, wall, chair, etc.)
- Setup the subject as the focal point of the picture – don't hide your subject!

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Taking Pictures (continued)

Wrong



Right





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Taking Pictures (continued)

- Take several pictures of each pose – maybe vary the lighting.
- Get in close -- people like to see themselves up close.
- Always smile -- sets up a good mood for the shoot.
- Some photographers use a flash even outside to prevent shadows.
- Keep the surroundings in mind – outdoors, parks, black background, etc.
- Use histogram display on your camera to measure shadows, mid-tones and highlights. (Ideal picture is centered – too dark is to the left – too light is to the right)

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Taking Pictures (continued)

- Consider special dressing for photo shoots (themes).



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Taking Pictures (continued)

- Consider backgrounds for photo shoots (parks, outdoors).





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Taking Pictures (continued)

- Light diffusers simulate studio lighting. Diffusers and reflectors are available in all sizes and shapes, and are sold separately and in kits. Many reflectors have a gold side to bounce a warm quality of light, and a silver side to bounce a cooler and stronger quality of light. Not only does the diffuser soften the light, but it increases the size of the light source, which is beneficial when taking group photographs. Some options are expensive and durable and are made for all cameras (<http://www.garyfongstore.com/>). Others are inexpensive, readily available and disposable; i.e., white styrofoam cups.
- Normally, eye-level for photos looks best.



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Storing and Organizing Photos

- Always turn the camera file numbering “On” to identify photos.
- Always copy and save your pictures where they will be safe, preferably to a CD or DVD. (CD = 700 MB and DVD = 4.7 GB). These RAW pictures can be accessed later if needed. Always process the copies, never the originals.
- File Naming –When you download the pictures name them using one of the processes below:
 - WW.XX.YY.ZZ.JPG where WW = Year, XX= Topic, YY= Subject , ZZ=No. (Example 2011.Digital-Class.Intro.01.JPG)
 - Folder = Year, Subfolders = Categories (Example 2011.Training.Digital-Class.Pictures\



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Storing and Organizing Photos (continued)

- **Never delete/erase your storage cards on the computer. Always format card in camera.**
- **If you lose pictures on a disk, there are recovery programs to get them back; i.e., Image Rescue and Photo Rescue.**
- **View your pictures using one of the following programs:**
 - **Windows XP Picture and Fax Viewer (preferred because it is very fast)**
 - **Ulead Photo Explorer**
 - **Camera's software supplied when the camera was purchased.**



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Storing and Organizing Photos (continued)

- **Digital Darkroom – Download pictures from your camera using one of the following:**
 - Compact Flash,
 - Multimedia,
 - SD,
 - Memory Stick using a multiformat reader.
 - USB or
 - Firewire cable.
- **There are many software programs to display your pictures:**
 - 3D-Album,
 - Flip Album, etc. (Many can create web albums)



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Storing and Organizing Photos (continued)

- There are programs also used for storage that will “Automatically” archive your pictures.
- **Caution:** avoid re-saving JPEG pictures as data is lost each time the file is processed.
- There are a large number of programs that will create slideshows to which you can add background music.



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Enhancing Your Images

- **Suggested Software:**
 - Ulead Photo Explorer Pro, ver. 7
 - Adobe Photo Elements, ver. 8
 - Adobe Photoshop CS5 (preferred)
 - Picasa (free)
- Digital cameras normally come with software that will perform most image processing.
- Software is available that will remove “noise” if necessary.



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Printing and Sharing Your Photos

- Remember: the higher the file resolution (DPI) the better the picture quality.
- Three choices:
 - Print your own photos
 - Type of paper will determine quality of print.
 - Printer properties are specific to paper types.
 - DPI (Dots-Per-Inch) resolution is very important in printing a high-quality photo.
 - Mail order is the cheapest! (Snapfish, Shutterfly, etc)
 - Upload your photos to web-based service for printing and quick pick-up (Walgreens, CVS, Walmart, etc.)



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This-n-That

- **Always hand-carry digital cameras when flying. Anthrax - detecting machines destroy storage cards.**
- **To avoid pictures of people squinting into the sun, pose the picture and ask them to close their eyes while you count to three. When ready, have them open their eyes and you have a second or two to snap the picture before the glare brings back the squinting.**
- **To capture a group picture that has everyone with open eyes, pose them and ask them to look at you and close their eyes. Count to three, tell them to open their eyes and snap the picture quickly.**



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This-n-That (continued)

- **A great spot for outdoor photo shoots with a waterfall is the Prairie Creek Park at W. Prairie Creek Drive in Richardson. Early morning or late afternoon is usually the best times.**
- **If your camera doesn't allow remote control shuttering, set up the pose using a support of some kind and set the delayed timer.**



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This-n-That (continued)

- Resources for camera techniques
 - Google
 - David Bush's camera manuals are easy to use by photographers and available for most cameras on Amazon.com.
 - <http://www.ehow.com/> (excellent how-to source)
- Resources for ideas:
 - <http://www.shortcourses.com/store/using2.html> (how to use your digital camera)
 - Join a camera club to share information
 - http://photography.lovetoknow.com/Category:Photography_Tips (great photo site)



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Thanks for attending!

If you have any questions, please contact:

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