Quick Reference Guide to Shooting Artwork in the Studio

Camera Settings:

File Size: RAW, or the largest jpg setting available if your camera doesn't have RAW

ISO: Keep it low to reduce digital noise- 100 or 200

White Balance: Select the appropriate white balance for the light you are using (i.e. tungsten, fluorescent, daylight) note: if shooting in RAW, you can always adjust the white balance later while editing if you make a mistake and shoot on the wrong white balance

Camera Mode: Aperture Priority allows you greater control of depth of field. A large or wide-open aperture (~ f/2.8) creates a smaller DoF, which will possibly result in some areas of your work being out of focus. A small aperture (~f/22) will have a greater DoF, which could result in your backdrop being in focus instead of a soft fade. I recommend an aperture setting around f/5.6, but experiment with it to make sure you're getting the shot you want. Shutter Priority allows the user to select the shutter speed, and the appropriate aperture is then set by the camera. In Manual Mode, the user selects both the shutter and aperture.
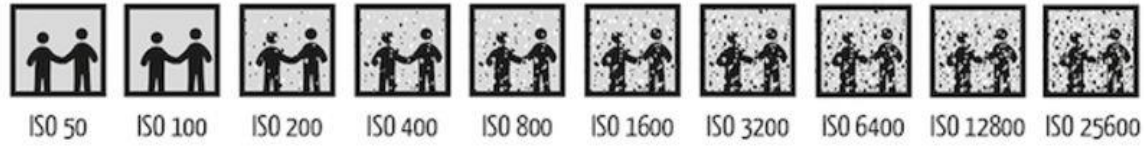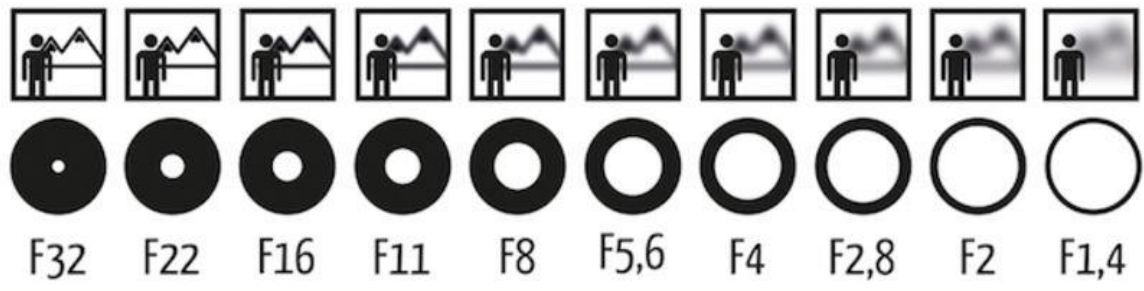
Lens: Choose a good portrait lens (~55mm or higher); shooting with a wide angle lens could distort your work

Shooting:

Lighting: Whether you are using the set-up in the photo studio, ceramics/sculpture area, or one you construct at home, try different lighting combinations for each work (overhead, from the sides, and bouncing the light off of white posterboard or foamcore). Pay attention to shadows and highlights (and the histogram on the camera) to make sure you are getting a result that you want

Timer: Use timer if you have a low light situation that calls for a slower shutter speed so you don't shake the camera during exposure

Bracketing: Bracket your exposure (1 stop over and under) so you have several to choose from when editing. It's easier to bracket the first time rather than having to set up the shot all over again.

F32	F22	F16	F11	F8	F5,6	F4	F2,8	F2	F1,4

1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2

ISO 50	ISO 100	ISO 200	ISO 400	ISO 800	ISO 1600	ISO 3200	ISO 6400	ISO 12800	ISO 25600

Image Scanning Procedure on the Epson Expression 10000XL Flatbed Scanner:

1. Turn on scanner and open Silverfast, select scanner, click Start

2. Check your settings:
   - Medium- Reflective
   - Material- Positive
   - Output color format and bit depth- 48 → 24 bit color

3. Place the material to be scanned face down on the glass scan surface and close the top. Apply slight pressure to lid to ensure that the page is lying flush against the glass. Click 'prescan' to start a preview of the image in the main scan window.

4. After the prescan appears, move the scan frame past the edges of the area you want to scan. If the image is tilted, leave some room around the image so it can be straightened in Photoshop later.

5. Image Adjustments: On the scan dimensions palette, name the file, select file format (tif), and select path for saving. Format should be set to custom, resolution to 300 dpi (or higher), and make sure the longest dimension in the 'output' window of is set to 3000 or more pixels (printable 8x10"). Make any midtone, contrast, or saturation adjustments below.

   The icons surrounding the scan window are tools and filters that allow you to make adjustments to the image. The main tools for adjustment are the Histogram (highlight, midtone, and shadow adjustments), and Global CC (color correction). Make any necessary adjustments to levels, brightness/contrast, and color of the image. Remember to make the image slightly flatter than looks best for fine-tuning in Photoshop. The "bright white" values should be less than 255, and the shadow values should not fall below 20. This is important to preserve as much shadow detail as possible in the scan.

   Filters -
   - USM (Unsharp Mask): I recommend bypassing this filter and using sharpening filters in Photoshop instead
   - Descreen: Useful for books where the publication dots create unwanted patterns within the image, or to smooth out the publication dots when scanning very small images.
   - SRDx (Dust and scratch removal)

6. Double check your settings to make sure everything is correct, then click the "Scan" button.

Retouching and Correcting Images in Photoshop

1. Open the Photoshop application and the image file(s) that will be worked on

2. Crop images as needed using the crop tool, and be sure that you are not cutting off any of the original artwork

3. Double check the master tiff size is 300 dpi, and 3000 pixels at the longest dimension (Always change resolution first, then the image dimensions)

4. Dust, scratches, and other imperfections can be removed using the healing brush or clone stamp tools (found on the tool bar on the left of the screen)

5. Color profile should be set to sRGB (Edit->Convert to profile)

6. Correction of highlights, shadows, and mid-tones can be made using level adjustments (image→ adjustments → levels)

7. Correction of brightness and contrast can be made using brightness/contrast sliders (image→ adjustments→ brightness/contrast)

8. Color correction can be made using color balance (image→ adjustments→ color balance). For all of these corrections, use the original artwork to compare brightness, contrast and color values.

9. Embed Metadata: File > File Info > Description (and/or Copyright Notice)

10. Once these major corrections have been done, save the image as a master tiff file, then resize to a smaller size jpg (72 dpi, 1024-2000 pixels at longest dimension)

11. Sharpen using the unsharp mask (filter→ sharpen→ unsharp mask) – the usual setting for web sized jpgs are radius: .3 to .5 pixels, threshold level set to 1, and depending on the amount of sharpening needed, change the percentage amount anywhere from about 30% to 90%. For larger images or images that need heavier sharpening, increase the pixel radius, and then change the percentage amount. Use the preview window to make judgments about how much sharpening should be used.

Quick Reference Guide for Image Editing

- Crop Tool

- Healing Brush

- Clone Tool

- Dodge tool (Lightens)

- Burn tool (Darkens)

- Sponge Tool (Saturation)

Adjustments: Levels; Brightness/Contrast; Color Balance; Curves

Color Profile: sRGB

Image Size: 300 dpi, 3000 pixels at longest dimension (Master File/Printable 8x10)
            144 dpi, 1800 pixels at longest dimension (Projection)
            72 dpi, ~1500-1800 pixels at longest dimension (Web)

Embed Metadata: File > File Info > Description (and/or Copyright Notice)

Sharpening: Unsharp Mask

Save As: Tiff (Master File)
          Jpg (Print/Web)