

Digital Photo Manipulation

Participant's Guide



Background

This workshop is designed to familiarize you with more specific options and tools within Photoshop CC. These options are used in the fine-tuning of photos. You will learn about *Masks Techniques, Applying Filters, Intermediate Retouching*, and more *Adjustment Layers*.

Required skills

The following skills are required before participating in the series:

- Knowledge of pc (Windows or Mac)
- Basic keyboard knowledge
- Ability to use a mouse
- Completion of *Digital Photo Editing CC STC Workshop*

Digital Photo Manipulation

Agenda

- Overview of Layers
- Masks Techniques
- Correcting Image Distortion
- Blending Modes
- Applying Filters (Convert to Smart Object, Unsharp Mask, Gaussian Blur)
- Intermediate Retouching (Whitening Teeth, Adjusting Eye Vibrancy)
- Color Balance

Basic Overview of Layers

Layers are used to organize and edit photos in a non-destructive or invasive way. Think of Layers as a sandwich, each piece stacked on top of one another (i.e. blemish removal, black & white adjustment, etc.). The layers can be turned on and off or deleted without affecting any other adjustments or layers you have made.

Here are some reasons why you **should** use layers when editing a photo:

- They will not destroy or alter the original photo.
- You are working on top of or a copy of the photo.

- You will have more control.
- You can use blending modes to change the way layers interact. (This topic will be covered in the Intermediate Photoshop course).
- You can change the opacity of any effects.
- You can add layer masks in order to work selectively on the photo.

Masks Techniques

When you add a layer mask, you can hide or show that entire layer, or base the mask on a selection or transparency. Later, you'll paint on the mask to precisely hide portions of the layer, revealing the layers beneath. Masking layers is a valuable compositing technique for combining multiple photos into a single image or for making local color and tonal corrections.

Benefits of Applying Masks

There are many benefits of applying masks within your Photoshop document. You can make local adjustments using any of the Adjustment Layers, Filters, as well as erase parts of your image but still have the ability to *paint* them back.

RECOMMENDED: In the Top Photoshop Menu Bar, on the right side click the double arrows and scroll down through the preset setups. Click *Photography*.

To create a Mask:

1. Open the file in Photoshop.
2. Create a new Adjustment Layer.
 - a. i.e. Brightness/Contrast, Black and White, etc.
3. Adjust the Layer to your specifications.
4. Activate the mask by inverting the *Adjustment Layer*.
 - a. *Masks Palette/Invert*.
 - b. OR *Image/Adjustments/Invert*.
 - c. OR keyboard shortcut: (*Mac*) Cmd+I, (*Windows*) Ctrl+I.
5. Select the *Brush Tool* (b).
6. On the top Tool Bar menu:
 - a. Change the opacity to 25% (recommended).
 - i. This allows you to go over the area multiple times, applying a percentage of the actual 100% Adjustment.
 - b. Change the hardness to be between 0%–10% (recommended).
 - i. This controls the edge of the brush. A low percent hardness allows for a feathered edge. A high percent hardness allows for a harsh/defined edge.
7. Make sure the *white swatch* is selected in the Tools Palette (left).
 - a. You can toggle between the two swatches by keyboard shortcut (x).
8. Zoom in to the area you want to edit.

9. Decrease the Brush Size.
 - a. Click on the top *Tool Bar* drop down arrow with the dot and number.
 - i. Adjust the *brush size*.
 - b. OR *right-click* within the document.
 - c. OR keyboard shortcut:
 - i. Closed bracket “]” to enlarge brush size.
 - ii. Opened bracket “[“ to decrease brush size.
10. Paint over the area of the image you want to show.
 - a. Although it does not look like anything has changed, keep going!
11. To see results:
 - a. Turn the Adjustment layer ON and OFF to see difference.
 - b. OR edit the *Adjustment Layer* in the *Adjustments Palette*.
 - c. OR keyboard shortcut: press and hold (*Mac*) “option”, (*Windows*) “alt” while you click the eyeball of the original image.
 - d. To see the painted area, keyboard shortcut: press and hold (*Mac*) “option”, (*Windows*) “alt” and click on the black box of the *Adjustment Layer* in the *Layers Palette*.
12. Once you start painting, notice the area exposing the *Adjustment Layer*.
13. If you are drawing white or black strokes:
 - a. *File/Undo*
 - i. OR keyboard shortcut: (*Mac*) Cmd+Z, (*Windows*) Ctrl+Z.
 - ii. OR back up your steps in the *History Palette*.
 - b. Click on the *Adjustment Layer’s Mask* (black box) in the *Layers Palette*.
14. Continue painting.

TIP: If you accidentally paint over something you did not want to, with your *Brush Tool* selected and the *Adjustment Layer* you want to edit selected in the *Layers Palette*, toggle to the black fill [keyboard shortcut (x)] and paint over the area. This is much like erasing but you can go back and paint it again.

Activity 1: <u>Create a Mask.</u>

Erasing vs. Using a Mask

Using a mask to delete parts of an image versus the *Eraser Tool* is more beneficial because with an eraser you cannot get those pixels back. With a mask, you are able to paint on and off parts of an image. The information is always there for you to revisit if you need to.

Delete parts of an Image with a Mask:

1. Select the image in the Layers Palette.
2. In the Tools Palette (left), *click* on one of the selection tools:

- a. *Lasso Tool*.
 - b. OR *click-and-hold* on the *Magic Wand Tool* and select the *Quick Selection Tool*.
3. With the Tool, Select any part of the image you want to remain (faces, etc.).
 4. On the bottom of the *Layers Palette* click on the *Add Layer Mask* button.
 5. Automatically the part of the image was not selected disappears and a new *Layer Mask* has appeared next to the image in the *Layers Palette*.
 6. To make more of image visible, *paint* with the *white swatch* selected.
 7. To “erase” part of the image, *paint* with the *black swatch* selected.

To Delete the Layer Mask: *Right-click* on the Mask and *click Delete Layer Mask*.

These steps apply to all Adjustment Layers with minute variation. Some of these variations will be explained throughout the workshop.

Activity 2: Delete parts of the image using a Mask.

Applying Filters

Convert to Smart Object

When applying *Filters* to an image it is advised that the image be converted into a *Smart Object*. This application allows you to apply *Filters* you can turn on and off to see their effect as well as reopen them to edit. Without converting an image to a *Smart Object*, once you apply a *Filter* it is part of that image. It can be undone but once you apply it and continue to do something else to your image everything after that *Filter* will be erased once you back up to erase it.

To Convert an Image to a Smart Object:

1. Select the image in the *Layers Palette*.
2. *Right-click* on the image name within the *Layers Palette* (Layer 0, Layer 1, or the name you assigned it).
3. Click *Convert to Smart Object*.
4. From here any *Filter* you apply will show up in the *Layers Palette* and will be editable.

Activity 3: Convert the Image to a Smart Object.

Correcting Image Distortion

This is the main function for removing unwanted lens distortion.

1. After converting to a smart object click on filters>lens correction

2. Check the lens model and camera model and change the model of both on the right drop down menu to match
3. Go to custom
4. Slide the remove distortion slider until the distortion is fixed
5. In the top right go to the straighten tool and drag a line across a straight ledge or horizon to straighten image

Blending Modes

1. Find textures and picture you would like to blend together
2. Open both in Photoshop
3. Drag and drop second image into first
4. Under the blend mode drop down menu select the type of bending you desire

TIP: You can play with the opacity to get the amount of effect you would like

Activity 4: Blend a texture into a photo

Apply an Unsharp Mask

This is Photoshop's primary sharpening tool. It is the first sharpening filter you need to learn. Even though the name is misleading, the Unsharp Mask allows you to control the degrees of sharpening in comparison to some of the other filters.

To apply the Unsharp Mask:

1. Select the image in the Layers Palette (specifically one that has been converted into a Smart Object).
2. On the Top Menu, Click *Filter/Sharpen/Unsharp Mask*.
3. A dialogue box will appear containing:
 - a. Amount—controls the amount of sharpening that can be applied.
 - b. Radius—the thickness of the halo's drawn around the edges within the image. This supplies more clarity than sharpening.
 - c. Threshold—sharpens pixels that are different from one another, depending on the number chosen. Those that are very similar are *blurred* while those different are *sharpened*. Human faces want values greater than 1 or 2, perhaps 5 or more. For inanimate objects, 0 or 1 is useful. Generally 3 to 4 work. This control has little effect at high values, but has more effect changing between low values of 0 to 5.
4. There is a Preview within the dialogue box you can *click-and-drag* around in. If you *click-and-hold* within the box you can see the original image and once you release it shows the applied filter.
5. Click *OK* when you are finished adjusting the levels.

6. A white box with the label *Smart Filters* will appear in the Layers Palette along with the name of the filter applied below.

You can apply a mask to the Unsharp Mask to blur certain spots on your image. For example, shiny or oily spots of a face, skin blemishes, etc.

Activity 5: Apply an Unsharp Mask.

To apply/edit a Mask to a Smart Filter:

1. To start, a mask is created when a *Smart Filter* is applied to a *Smart Object*.
2. To edit, *click* on the white box next to *Smart Filters* in the *Layers Palette*.
3. Activate the mask by inverting the *Adjustment Layer*.
 - a. *Masks Palette/Invert*.
 - b. OR *Image/Adjustments/Invert*.
 - c. OR keyboard shortcut: (*Mac*) Cmd+I, (*Windows*) Ctrl+I.
4. Select the *Brush Tool* (b).
5. On the top *Tool Bar* menu:
 - a. Change the opacity to 25%.
 - b. Change the hardness to be between 0%–10%.
6. Make sure the white swatch is selected in the *Tools Palette* (left).
 - a. You can toggle between the two swatches by keyboard shortcut (x).
7. Zoom into the area you want to edit (cheek/nose).
8. Decrease the Brush Size.
 - a. Click on the top *Tool Bar* drop down arrow with the dot and number.
 - i. Adjust the *brush size*.
 - b. OR *right-click* within the document.
 - c. OR keyboard shortcut:
 - i. Closed bracket “]” to enlarge brush size.
 - ii. Opened bracket “[“ to decrease brush size.
9. Paint over the area (cheek/nose) you want to blur.

Activity 6: Edit the unsharp mask

Applying a Gaussian Blur

When using Blurs for photo editing and enhancing the most effective Filter is Gaussian Blur.

To apply a Gaussian Blur:

1. Select the image in the Layers Palette (specifically one that has been converted into a Smart Object).
2. On the Top Bar Menu, Click *Filter/Blur/Gaussian Blur*.
3. A dialogue box will appear.

- a. Recommended pixels: 1.0–4.0.
- b. Anything higher or lower is unnecessary or excessive.
4. There is a Preview within the dialogue box you can *click-and-drag* around in. If you *click-and-hold* within the box you can see the original image and once you release it shows the blurred filter.
5. Click *OK* when you are finished adjusting the levels.
6. A white box with the label *Smart Filters* will appear in the Layers Palette.
7. Because the Blur was applied to a Smart Object, you can make it a *Mask* to view portions of it.

Activity 7: Apply Gaussian Blur to Smart Object.

Intermediate Retouching

Teeth Whitening Technique

Pre-step: Make sure the layers palate is open and visible.

1. Create new *Brightness/Contrast* Adjustment Layer.
2. Looking at the teeth, adjust the *Brightness/Contrast Layer* in the *Adjustments Palette*.
3. Activate the mask by inverting the *Adjustment Layer*.
 - a. *Masks Palette/Invert*.
 - b. OR *Image/Adjustments/Invert*.
 - c. OR keyboard shortcut: (*Mac*) Cmd+I, (*Windows*) Ctrl+I.
4. Select the *Brush Tool* (b).
5. On the top Tool Bar menu:
 - a. Change the opacity to 25%.
 - b. Change the hardness to be between 0%–10%.
6. Make sure the white swatch is selected in the Tools Palette (left).
 - a. You can toggle between the two swatches by keyboard shortcut (x).
7. Zoom into the area you want to edit (teeth).
8. Decrease the Brush Size.
 - a. Click on the top *Tool Bar* drop down arrow with the dot and number.
 - i. Adjust the *brush size*.
 - b. OR *right-click* within the document.
 - c. OR keyboard shortcut:
 - i. Closed bracket “]” to enlarge brush size.
 - ii. Opened bracket “[“ to decrease brush size.
9. Paint over the area (teeth) you want to lighten.
 - a. Although it does not look like anything has changed, keep going!
10. To see results:

- a. Turn the Adjustment layer ON and OFF to see difference.
- b. OR edit the Brightness and Contrast Adjustment Layers.
- c. OR press and hold (*Mac*) “option”, (*Windows*) “alt” while you click the eyeball of the original image.
- d. To see the painted area, press and hold (*Mac*) “option”, (*Windows*) “alt” and click on the black box of the Adjustment Layer in the Layers Palette.

TIP: If you accidentally paint over something you did not want to, with your *Brush Tool* selected and the *Adjustment layer* you want to edit selected in the *Layers Palette*, toggle to the black fill “x” and paint over the area. This is much like erasing but you can go back and paint it again.

Activity 8: <u>Whiten the teeth of individuals in the photograph.</u>

Making Eyes Vibrant

1. Create a new *Brightness/Contrast* Adjustment Layer.
2. Looking at the eyes, adjust the *Brightness/Contrast* in the *Adjustments Palette*.
3. Activate the mask by inverting the *Adjustment Layer*.
 - a. *Masks Palette/Invert*.
 - b. OR *Image/Adjustments/Invert*.
 - c. OR keyboard shortcut: (*Mac*) Cmd+I, (*Windows*) Ctrl+I.
4. Select the Brush Tool (b).
5. On the top *Tool Bar* menu:
 - a. Change the opacity to 25%.
 - b. Change the hardness to be between 0%–10%.
6. Make sure the white swatch is selected in the Tools Menu (left).
 - a. You can toggle between the two swatches by keyboard shortcut (x).
7. Zoom in to the area you want to edit (eyes).
8. Decrease the Brush Size.
 - a. Top Menu/Size
 - b. OR pressing the close bracket “[” to enlarge brush size
 - c. Open bracket “[“ to decrease brush size
9. To make the eyes vibrant, paint around the pupil to make the iris lighter.
10. To see results:
 - a. Turn the Adjustment layer ON and OFF to see difference.
 - b. OR edit the Brightness and Contrast Adjustment Layers.
 - c. OR press and hold (*Mac*) “option”, (*Windows*) “alt” while you click the eyeball of the original image.
 - d. To see the painted area, press and hold (*Mac*) “option”, (*Windows*) “alt” and click on the black box of the Adjustment Layer in the Layers Palette.

TIP: If you accidentally paint over something you did not want to, with your *Brush Tool* selected and the *Adjustment layer* you want to edit selected in the *Layers Palette*, toggle to the black fill “x” and paint over the area. This is much like erasing but you can go back and paint it again.

Activity 9: Make the eyes of the individuals in the photography Vibrant.

Adjusting the Color

Color Balance

The key behind editing the colors of your photo is personal preference and to ensure the photo is balanced. When you edit the color balance of your photo, make sure there is not an overwhelming presence of a certain color such as red, blue, yellow, etc. This is unless it is the look you are going for. Ultimately an even balance is desired.

To adjust the Color Balance:

1. Create a new *Color Balance* Adjustment Layer (balance icon).
2. Adjust each Tone as you see fit.
 - a. Shadows, Midtones, and Highlights.
3. Adjustments should reflect a balanced photo.

Activity 10: Adjust your photos Color Balance.

Things Learned from this Course

- How to Create a Mask.
- How to delete parts of an Image using a Mask.
- How to Apply Filters.
- How to convert images to Smart Objects.
- How to Apply an Unsharp Mask and Gaussian Blur.
- How to Whiten Teeth and Make eyes more vibrant.
- How to Adjust the Color Balance.