RTV 2773

Multimedia Practicum: Digital Photography Summer 2013 Course Information

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WH 121

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Classroom / Class Time: WH 210, MTWRF, 9:30 am - 12:00 pm

Course Description:

An introduction to the fundamentals of digital photography through both in camera and post production techniques. Recent innovations like High Dynamic Range photography, color enhancement, and low light imagining will be explored.

NOTE: Students will need to provide their own Digital Still Camera (e.g, a simple Point-N-Shoot or DSLR camera) to participate in this class.

Required Account: http://picasaweb.google.com/

Suggested Text:

Freeman, M. (2007). *The Photographer's Eye: Composition and Design for Better Digital Photos*Focal Press. ISBN: 978-0240809342

Expectations:

Deadlines - All projects will be submitted at the start of class on the due date. Late submissions will not receive full credit. Students who fail to submit all required projects will not receive a passing grade in the course. Since an important part of work in media fields is meeting deadlines, late work will not be accepted unless you contact me in advance with a legitimate, documented reason (for example, serious illness would be an acceptable excuse; having work due in another class would not). Time management is an important skill for success in the communication field.

Attendance - I expect you to be in class on time. Excessive absences will result in the lowering of your grade. Because illness, emergency, or University-sanctioned activities can sometimes cause you to miss class, absences may be excused if you discuss the problem (in advance if possible) with the instructor. If you cannot reach me, leave a message with the division office (979-1233). The decision about whether or not to excuse an absence rests with the instructor. Excessive absences (more than three) will result in an academic alert.

Academic Integrity - I expect you to do your own work for this class. You may consult with others and you may refer to models or examples from the texts or class, but you must individually prepare and create your own work for grading. For more information, refer to the section on academic integrity in the Talon student handbook. Violations of academic integrity are serious offenses. If you are caught using someone else's work as you own or helping someone else to cheat, you may receive a zero for that assignment and I will notify the Provost and the BCG division chair. If you are caught plagiarizing or cheating a second time, you will receive a grade of "F" for the course and I will notify the Provost.

RTV 2773: Digital Photography Summer 2013 - Dailey

Grading Policies:

Evaluation Criteria: Each of the 6 photography assignments will count as 15% of your grade, for a total of 90%. The remaining 10% is for attendance, participation in class, and the completion and quality of your peer reviews.

Late assignments: Since the assignments come in rapid succession, it is important that each be completed on time. Replacing photos after the deadline is not allowed, and will be treated as a violation of the honor code. To allow for unforeseeable circumstances, you will be allowed 2 days (24 hour periods) of grace across all your assignments. Beyond this, late assignments will be penalized by 20% of the grade for that assignment per day that they are late. Additionally, any assignment that is not submitted within one day of the assignment deadline will not be peer reviewed. Exceptions to this late policy will be made only in the case of a necessary (non-pleasure) trip approved in advance by the professor, or severe illness. If you do not submit one of the assignments at all, or miss more than two reviews, you will fail the course. In this case, or if you believe you are in danger of failing, it is your responsibility to come talk to me ASAP. Incompletes are given only in exceptional circumstances.

Originality, collaboration, and borrowing: Many of you may have taken extraordinary photographs in your life. Some of these photographs may perfectly and beautifully satisfy the requirements of a class assignment. Nevertheless, in the interests of fairness and continued learning, I expect your submissions for each assignment to be photographs taken by you specifically for this course. You are encouraged to discuss assignments with friends, but you are expected to take your own photographs.

ADA STATEMENT

If any member of the class has a documented disability and needs special accommodations, the instructor will work with the student and the office of Student Support Services or the Jones Learning Center or the Academic Center for Excellence to provide reasonable accommodation to ensure the student a fair opportunity to perform in this class. In order to plan for optimum success, please advise the instructor of the disability and the desired accommodations as soon as possible. Students are strongly encouraged to notify the instructor during the first week of classes. Without ample planning / preparation time, we cannot assure the availability of needed accommodations in a timely manner.

QUALITATIVE EVALUATION CRITERIA

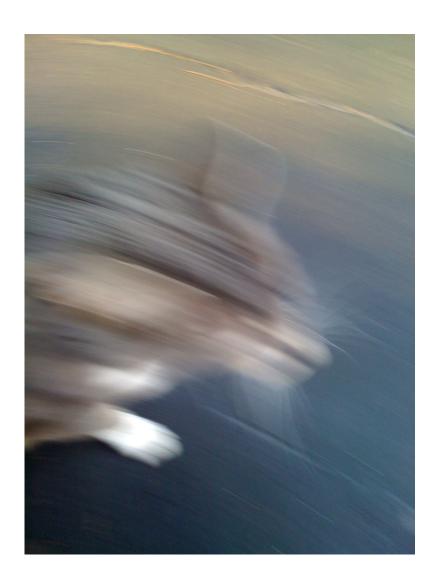
Note: Your final grade in this course is determined by overall performance. The following components will be weighted to determine your final grade:

Assignments / Reviews:	Percent
Bad Photos (due 5/15)	15.0
Portraiture (due 5/20)	15.0
Macro (due 5/22)	15.0
Architecture & Interiors (due 5/2	4) 15.0
Landscape and Nature (due 5/2	8) 15.0
Night and Color (due 5/31)	15.0
Discussion / Participation: In-Class Discussion	10.0
TOTAL	100%
	= 60-69% = Below 60%

COURSE SCHEDULE (may be amended as needed to benefit the class)

Date	Topic	Activity / Discussion / Presentations
Week 1		
May 13	Assignment 1 - Bad Photos	Introduction to course / cameras / Picasa
May 14	Getting To Know Your Camera	
May 15	Composition	Assignment 1 - SHOW & TELL
		Between The Pixels
May 16	Photoshop	PS - Interface, Menus, Tools, Selections
		PS - Layers, Filters, Effects
May 17	Assignment 2 - Portraits & Light	3 Point Lighting
Week 2		
May 20	Workday	Assignment 2 - SHOW & TELL - 10:15 AM
May 21	Assignment 3 - Macro	O of U Up-Close
May 22	Workday	Assignment 3 - SHOW & TELL - 10:15 AM
May 23	Assignment 4 - Architecture & Interiors	O of U Widescreen
		PS - Panoramas
May 24	Workday	Assignment 4 - SHOW & TELL - 10:15 AM
Week 3		
May 27	MEMORIAL DAY	NO CLASS
May 28	Assignment 5 - Landscape and Nature	FIELD TRIP
May 29	Workday	Assignment 5 - SHOW & TELL - 10:15 AM
May 30	Assignment 6 - Night and Color	Intro to HDR & Low Light
May 31	Workday	Assignment 6 - SHOW & TELL - 10:15 AM
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Assignment 1 - Bad Photos



Motivation

Cameras in automatic mode try to take care of the technical aspect of photography for you, and just let you frame the scene and shoot. They will attempt to make sure the scene is not too dark, not too bright, not blurry, and so on. These goals don't always match up with the photographer's intent. For this first assignment, you'll be playing with the settings on your camera to produce photos you can't easily produce in automatic mode. You'll be taking photos that your camera might consider "bad" in some technical way, but are nonetheless interesting to look at, and even artistic. For this assignment, you'll also be setting up the online photo album that you'll use throughout the course to both submit your work for grading, and to share your work with your fellow students.

Instructions

- 1. Make a Picasa Web account for the course. You'll be making one new album in this account for each assignment. If you already have a Google login you can use that, or you can make a new one just for RTV 2773. Picasa web ties in with the Picasa photo management software, which you might find useful for managing your photo collection. Making a Picasa Web gallery is fairly straight-forward. If you're having trouble, talk to me after class and I'll help you get started.
- 2. The Picasa albums you make for this course should all be listed as "public" so myself and your fellow students can see the photos you've taken. If you have a particular reason to make an album not public, coordinate with me to make sure I can still grade it.
- 3. Email the web address of your Picasa account to me.

Take some photos that meet the requirements listed below, and upload them as an album titled "RTV2773 Assignment 1 - Bad Photos", and add comments below each photo explaining how you took the photo, what relevant camera settings you used and why, any image processing done to the photograph afterwards, and most importantly, which requirements each photo covers. See the example solution below as a guide to what I'm looking for. Your comments aren't required to go into quite as much detail as the example solutions, but if you don't add comments to your photos you won't receive any credit for the assignment.

Each photograph you upload should meet one or more of the requirements below, and you should make sure to cover every requirement with at least one photo. In other words, for each photo you upload, it should fulfill at least one requirement for the assignment, and among all of the photos you upload, every requirement should be fulfilled at least once. You should upload at least 5 photographs for the assignment, but no more than 15 please. Be sure to state in your comments (ideally right at the top) which requirements each photo meets. Note that these general rules apply to this assignment and all subsequent photo assignments in this course.

Now, for Assignment 1 specifically: remember, even though the photos you take are supposed to be technically "bad" in some sense, I want you to create things that are interesting to look at. The "badness" should be intentional for an artistic purpose.

- ✓ Requirement 1: At least one photo must be poorly exposed. That is, most of the image should be either very close to black (underexposed) or close to flat white to due oversaturation (overexposed).
- ✓ Requirement 2: The main subject of at least one photograph should be motion-blurred, either due to movement of the subject or movement of the camera.
- ✓ **Requirement 3:** In at least one photo, nothing at all should be in focus. It's hard to take a good looking photo where nothing is in focus be creative!
- ✓ Requirement 4: You should use the wrong white balance setting for some intentional effect in at least one photo. The white balance setting on a camera tells the camera what color it should expect the scene illumination to be, for example daylight (which is bluish) or indoor incandescent (which is reddish). Most cameras have an "auto white balance (AWB)" setting, and manual settings for these other illumination types. You don't need to understand white balance in detail to fulfill this requirement. It's a subject we'll cover in detail later in the course.
- ✓ Requirement 5: At least one photo should be poorly composed. Search on Google for "rules of composition". Read about them, and then intentionally break a few. If you're not sure what to do you may want to consider an exactly centered subject that produces an oddly symmetric photo, a confusion between the subject and a background object, or a horizon that isn't level.

FAQs

Q: My Camera doesn't have manual focus. How can I force everything to be out of focus? **A:** Even if your camera doesn't provide manual focus, you can usually force the focus to be anything you want. Just point at an object that's not in your scene but at the desired depth, press the shutter button halfway to autofocus on it, then with the button still half-pressed, swing around to aim at your scene and press the button fully. Does the exposure come out wrong when you do this? We'll talk in class about focus-lock and exposure-lock functions, which not all cameras have.

Q: At what resolution should I upload my photos?

A: Google resizes your photos for viewing, and gives you 1GB of free storage. This should be enough that you can safely upload full resolution images for the course. If you're worried about running out of space, you could also resize your images in Photoshop, Picasa, or a similar program before upload to something smaller.

Q: Are we allowed to edit our photos in Photoshop before uploading? How much editing is acceptable? Do we have to say what we did?

A: In general, most requirements won't necessitate any image manipulation in Photoshop, and for this first assignment, none of them do. However, some requirements for future assignments will specifically involve image editing, and even for those that don't, you're always welcome to process your images in Photoshop or any other program. Just keep in mind that if you do edit your photos in Photoshop, you should definitely state what you did in the Picasa comments. For example, you might say: "I used Photoshop to increase the saturation and darken the sky". Finally, keep in mind that Photoshop should not be used as a substitute for proper use of your camera or for faking a requirement. For example, for this assignment your underexposed or overexposed photo must be that way from the camera -- you're not supposed to just take a normal photo and use Photoshop to make it way darker or brighter.

Grading

It's hard to judge artistic quality, so rather than grading the individual photos, I will assign grades based on whether you met the requirements of the assignment. For each requirement, you'll be given 3 points for meeting the requirement, check-minus for not quite meeting the requirement, or check-plus if you do something spectacular that makes your professor's jaw drop.

Assignment 2 - Portraits & Light



Motivation

People are certainly one of the most interesting and most challenging subjects to photograph. You will need to think about lighting, backgrounds, depth of field, composition, and color. You can also (tastefully) touch up each photo in Photoshop.

If you find yourself without anyone willing to model for you this week, you can take a self-portrait for any of the requirements. This is an interesting type of photograph in its own right, and adds a degree of difficulty.

Instructions

This assignment has four photographic requirements. Requirements 1 through 3 must be met by taking pictures of human beings. (Sorry, no portraits of pets, stuffed animals, etc.) Requirement 4 can be met using any subject of your choosing. You should upload at least 4 photographs for the assignment, but no more than 12 please.

Requirements

✓ Requirement 1: Indoor Traditional Portrait

Take a portrait of someone using a traditional portrait lighting setup as demonstrated in class (a key light, a fill light, and possibly a background light and accent/rim light). Unless you have some fancy lighting gear of your own, you should take this picture during class where we will set up a full studio lighting kit.

- ✓ Requirement 2: Indoor Natural Light Portrait
 - Take a portrait of someone indoors using only non-electric sources of light (a fireplace, candles, the sun, etc). You might want to arrange someone near a window. Think about the light in the same way as for the studio lighting, and comment on how you created a fill light, how you created a key light, etc.
- ✓ Requirement 3: Outdoor Available Light Portrait

 Take a portrait of someone outdoors under available lighting only. Comment on what serves as the fill light and key light. If you like, you can also make this one a candid shot, in which the subject is not aware you're taking a photo (or at least appears to not be aware).
- ✓ Requirement 4: Flash + Ambient
 Take a portrait that uses a combination of your camera's flash and ambient illumination. Again, comment on what serves as the key light and what serves as the fill light. Remember, you need not point the flash right at the subject with a small hand-held mirror or white card you can bounce any camera's flash elsewhere.

Upload your photos and add comments.

Upload your photos using the Picasa account you created in the first assignment to a public Picasa album titled "RTV2773 Assignment 1 - Portraiture". Write at least two short paragraphs (ie two Picasa comments) below each of your photos explaining how you arranged the scene, how you took the photo, what relevant camera settings you used and why, any image processing done to the photograph afterwards, and most importantly, which requirement the photo covers.

Assignment 3 - Macro



Motivation

Humans have excellent vision compared to the majority of the animal kingdom; yet modern photographic lenses and sensors are better still. A nice lens will have a larger aperture than the pupil in your eye making it easier to isolate the subject and blur out everything else. Also, lenses are available with much longer focal lengths than the human eye allowing us to magnify a subject beyond our natural ability to see it. It's a real pleasure to take a photograph that lets us see that which we normally could not.

Instructions

In this assignment you'll be turning your gaze downward at flowers, bugs and other small, interesting things you might normally ignore. **Take 5 to 10 photographs for this assignment.** You may hit multiple requirements using a single photo. For each photograph, the subject should be something small and close to the camera. You may enjoy photographing bugs, flowers, small pieces of trash, electronics, mundane household objects that you wouldn't normally look at closely, parts of the body (please don't take any photographs your instructor is not going to want to grade), toys, leaves, water droplets, gemstones, and food, among other things. Pay attention both to the subject that is in focus, and also to the quality of the out-of-focus regions.

Requirements

✓ Requirement 1: Focus on the foreground

At least one of your photographs should be be focused on the closest thing in the field of view to the camera, and should contain out-of-focus elements behind it.

✓ Requirement 2: Focus on the mid-ground.

At least one of your photographs should have out-of-focus elements in front of and behind the subject you are focused on.

✓ Requirement 3: Bugs.

At least one of your photographs should have a bug as its main subject. If you can't find a bug, other very small animals are just fine, too. Keep it really small, though (dogs and cats are way too big, but little lizards could work).

✓ Requirement 4: Plants.

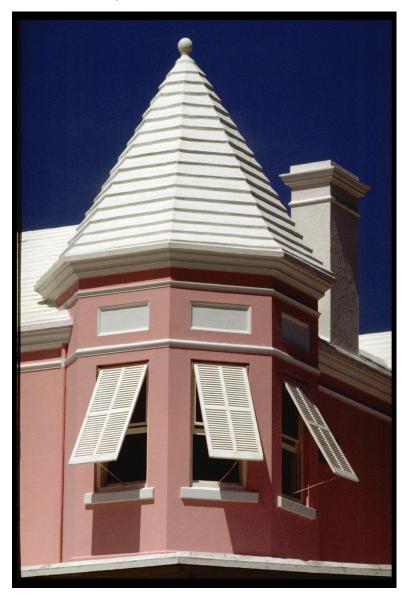
Take at least one photograph whose subject is part of a plant - e.g. a flower, leaf, spine, some bark, a piece of fruit.

✓ Requirement 5: Man-made objects.

At least one of your photographs should feature a man-made object like a toy, some circuitry, jewelry, etc.

Upload your photos and add comments.

Upload your photos using the Picasa account you created in the first assignment to a public Picasa album titled "RTV2773 Assignment 3 - Macro". Write at least two short paragraphs (i.e., two Picasa comments) below each of your photos explaining how you arranged the scene, how you took the photo, and what relevant camera settings you used and why, any image processing done to the photograph afterwards, and most importantly, which requirement the photo covers.



Assignment 4 - Architecture and Interiors

Motivation

Good photography often shows us the familiar in an unfamiliar way. Taking macro photographs in the last assignment, we made small things larger on our computer screens, and saw a level of detail not usually visible to the naked eye. For this reason, it's not too difficult to take a macro photograph that makes a non-photographer gasp. Capturing a compelling image of Architecture can be much harder. This time you'll be looking at the spaces where people live and work and trying to fit them into a frame.

Architecture is typically more geometric than natural scenes, so this assignment is a good reason to think about the geometry of your scene. Consider repeating elements, size relationships as they change under perspective, the lines induced by vanishing points, and the texture and weathering of man-

made objects. One way to surprise people with architecture and interior photography is by using clever composition to highlight the geometric aspects of structures that are subliminal or even overlooked. The requirements this week will help you play with geometry and think about the practical concerns of people who need to represent an interior space in a photograph.

Instructions

There are 5 requirements in this assignment that you should meet by taking 5-10 photographs.

Requirements

- ✓ Requirement 1: Vertical vanishing point in at least one of your photos, vertical lines in the world (e.g. corners of buildings) must visibly converge to a vanishing point either within or nearly within your frame. To do this, look up and use a wide field of view (a short focal length).
- ✓ Requirement 2: No vertical vanishing point in at least one of your photos, vertical lines in the world must appear parallel in your photograph. You can do this by looking straight ahead when you take the picture and fixing the composition by cropping later. Alternatively, you can use Photoshop's perspective warp tool (found under Edit->Transform->Perspective) to make these lines parallel. You can also use the lens correction tool found in the Filter->Distort menu.
- ✓ Requirement 3: Frame your shot... At least one of your photos should be shot through a door, window, archway, or other physical man-made frame. The frame should be visible in the photograph, but is not necessarily the subject. The frame need not be rectangular.
- ✓ Requirement 4: Repeating patterns. Find some interesting repeating patterns in a building or other man-made architectural object and use them as the focus of a photograph. Try to be creative here -- don't just take a random photo that happens to have some repeating elements. Instead, make the repeating elements the obvious theme of the image. So while you should certainly explain your choices in your comments, the repeating patterns shouldn't be so obscure that the viewer would need to read your comments in order to ascertain the repeating theme of the photo.
- ✓ Requirement 5: Interior Panorama. As real-estate agents know, it's hard to capture the interior of a room without making it look small, and it's usually impossible to fit the entire room in the frame (where would you stand?). We're going to solve this with an interior panorama. Stand in the corner of a small room, or at the center of a large room, and take a sequence of photographs that captures the entire room, rotating the camera about its center of perspective (somewhere in the middle of the lens). Make sure your photographs overlap by about 25-50%. Then, convert your set of photographs into a single panorama that better shows off the interior of the room. We want to see the panorama, not the source photographs. Try to find an interesting room to do this in. Interiors are often dim, so pay attention to your camera settings and the available light. In Photoshop you can make a panorama by going to the File menu, selecting Automate, and then Photomerge. A cylindrical layout usually works best, but you should try the other ones too to see what they do. If the resulting image has obvious artifacts (eg edges that don't line up), you probably didn't rotate the camera about the center of perspective, and need to try again. For this reason, you may want to make multiple attempts at capturing the source photos for the panorama before you take your photos back to Photoshop.

Upload your photos and add comments.

Upload your photos using the Picasa account you created in the first assignment to a public Picasa album titled "RTV2773 Assignment 4 - Architecture and Interiors". Write at least two short paragraphs (i.e., two Picasa comments) below each of your photos explaining how you arranged the scene, how you took the photo, and what relevant camera settings you used and why, any image processing done to the photograph afterwards, and most importantly, which requirement the photo covers.

Assignment 5 - Landscape and Nature



Motivation

We explored the man-made environment in assignment 4. It's time to return to one of the richest sources of beauty for photography: nature, and particularly the natural landscape. The difference between a mundane landscape and a great landscape is often composition. Pay attention to lines, framing, suggestive forms, diagonals, s-curves, balance, rhythm and texture. Lighting will also play a large role in your photographs this week. You will find that morning and evening lighting brings out rich colors and delicate shadows in your photographic subjects, whereas mid-day lighting is generally harsh and direct. For a more dramatic photograph try positioning yourself so that the sun provides sidelighting, or even back-lighting. Getting the correct exposure is more challenging in these situations, but the results are well worth it!

Instructions

There are 4 requirements that you will meet by taking 4-8 photographs. Below each one justify your choice of camera settings and comment on compositional elements of your scene.

Requirements

✓ Requirement 1: Use an S-Curve

S-Curves can be used in photographs for a variety of purposes. They can lead the viewer's eye to the subject, convey a sense of depth (e.g., a road winding into the distance), or they can be flat compositional elements that create a balanced scene. At least one of your photos this week should use an S-Curve for one of these purposes. Describe in the comments what purpose the S-curve serves compositionally. Note that the S-curve we refer to here is not the same thing as an S-curve you might use in a curves layer in Photoshop to enhance contrast.

✓ Requirement 2: Panorama

In assignment 4 you took an interior panorama, and had to be very careful to rotate the camera about the center of the lens to avoid artifacts. This week take an exterior panorama of a landscape. You'll find that landscape panoramas are far more forgiving; as the scene is mostly far away so small movements of the photographer do not materially change the point of view. It's easy to make a boring landscape panorama that simply compresses multiple elements into the frame. Find a subject wide enough to justify the use of this technique.

✓ Requirement 3: Texture

Take at least one shot in which the main, or even sole compositional element is a natural texture. Use a small aperture (large F-number) to get everything in focus. Interesting natural textures include grass, rock, pebbles, and clouds. Use Photoshop to take advantage of the full tonal range available to you, from black to white. You'll find that textures under grazing light appear richer, which leads us to the next requirement...

✓ Requirement 4: The Golden Hour

Landscape photography is best done in the golden hour. This is the hour after dawn or the hour before sunset when the light is a rich golden color and strikes the earth at a grazing angle, emphasizing details. At least one of your photographs for this assignment must be of a landscape taken during the golden hour. Dawn is definitely preferable, as the air is much clearer, but if your sleep schedule makes dawn either too late or too early, sunset is also acceptable. Sunset is currently approximately 8:20pm, and dawn is approximately 6am. You should thus be planning to take photos from 7:15-8:15pm, or 6-7am.

Upload your photos and add comments.

Upload your photos using the Picasa account you created in the first assignment to a public Picasa album titled "RTV2773 Assignment 5 - Landscape and Nature". Write at least two short paragraphs (i.e., two Picasa comments) below each of your photos explaining how you arranged the scene, how you took the photo, and what relevant camera settings you used and why, any image processing done to the photograph afterwards, and most importantly, which requirement the photo covers.

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Assignment 6 - Night and Color



Motivation

Taking photographs at night presents unique challenges. Exposure times must be very long, so handholding the camera is out of the question. However, with a steady place to rest the camera (which need not be a tripod), and a long exposure, the light gathering ability of your camera can greatly exceed the human eye, allowing you to capture a shot of something you could not normally see, such as a forest at night, a faraway galaxy, or even a rainbow cast by moonlight.

Instructions

There are 3 requirements that you will meet by taking 12-20 photographs. NOTE: Requirement 3 (HDR) will take extra time, so please review it ASAP.

✓ Requirement 1: An Outdoor Night Scene of Nature

Head outside, find somewhere stable to rest your camera, and photograph a picturesque natural night scene. We want to see absolutely no motion blur due to camera movement in your shot. You may wish to use the self-timer mode on your camera to avoid the problem of moving the camera when you press the shutter button. As this is a night scene, your exposure time should be at least one or two seconds. For this nature requirement, you may want to find a landscape illuminated by the sky and/or moon and/or artificial lights, but the subject should be nature (and not artificial objects). It's okay if there is an incidental amount of manmade stuff in your scene, but your photograph should be all or almost all natural, and the subject should clearly be nature.

✓ Requirement 2: An Outdoor Night Scene of Architecture

As in requirement 1, take a night photograph of at least one or two seconds exposure with absolutely no motion blur, but this time your subject should be architecture. Example subjects include bridges, city streets, buildings, cityscapes, etc. Reminder: your photo should be well exposed, so we can see detail in the buildings and other objects -- don't make it so dark that all we can see are the lights.

✓ Requirement 3: HDR Photography

Take two HDR photographs of two different scenes (only one can be on campus).

- Carefully select your scene and subject. Bright colors can really pop in HDR.
- · It should have both highlights and shadows.
- No people, animals, or moving objects only inanimate objects.
- One image must have a realistic look and the other should have a creative look.
- Submission: UPLOAD ALL source and final images to your Picasa account.

Directions for the HDR Photography Shoot

- 1. Using a tripod is essential.
- 2. Select an appropriate scene and composition.
- 3. Set the camera to 200 ISO, manual mode, and f16.
- 4. Focus on the scene and turn the auto focus off.
- 5. Find the "normal" exposure according to the light meter, shoot one frame (careful not to move the camera / tripod).
- 6. Next, shoot one full stop below (-1 stop) the normal exposure (three clicks of the dial). Shoot another at -2.
- 7. Finally, shoot one full stop above (+1 stop) the normal exposure and another at +2.
- 8. Take a few different compositions of the same scene.
- 9. We will practice processing these in Photoshop on Thursday.

Upload your photos and add comments.

Upload your photos using the Picasa account you created in the first assignment to a public Picasa album titled "RTV2773 Assignment 6 - Night and Color". Write at least two short paragraphs (i.e., two Picasa comments) below each of your photos explaining how you arranged the scene, how you took the photo, and what relevant camera settings you used and why, any image processing done to the photograph afterwards, and most importantly, which requirement the photo covers.

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