Every day, people are bombarded with thousands of visual images. The media of the 21st century and beyond will continue this visually-oriented and graphic trend. One of the key components to the success of these visual print publications is photography. Photojournalism introduces students to the world of photography and journalism. The law, ethics and history of photography will complement the major units of study: operation and care of the camera, taking pictures, film and print processing, digital photography, teamwork and management skills.

In addition, students will have the opportunity to use state of the art computer-aided publishing tools and other hands-on production tools as well as modern darkroom facilities. This course can serve as the prerequisite to newspaper production or magazine/yearbook production and may provide students insights into college and career choices.

Some out-of-class time will be required including the time to shoot at least three photo assignments per grading period. Completion of photo assignments includes taking the picture, processing the film, making a contact sheet, selecting the prints, making the prints and turning them all in with a completed evaluation form on time. Late assignments result in a grade of 0 for that assignment.
COURSE OUTLINE

I. CAMERA BASICS
A. Camera parts
B. The lens
   1. Different types of lenses
C. Film
   1. Different types
   2. Film speed (ASA/ISO)
D. Filters

II. COMPOSITION
A. Rule of Thirds
B. Balance
C. Framing, S-curves, repetition of shapes, leading lines
D. Evaluating composition

III. TECHNICAL QUALITY
A. Focus
B. Lighting
   1. Direction
   2. Intensity
   3. Color
   4. Artificial
   5. Metering
      a. Bracketing
C. Stopping action
   1. Fast shutter speeds
   2. Panning
   3. Hand holding with slow speeds
D. Depth of field
   1. Blurring the background
   2. 1/3 in front, 2/3 behind
E. Equivalent exposures
F. Evaluating technical quality

IV. DARKROOM PROCEDURES
A. Film developing
   1. Theory
      a. The latent image
      b. Film structure
      c. The chemistry of development
   2. Equipment/chemicals
   3. Process
   4. Push processing
B. Printing and making contact sheets
   1. Theory
      a. The latent image
      b. Paper structure
      c. The chemistry of development

2. Equipment/chemicals
3. Process
   a. Dodging and burning
   b. Making test strips
   c. Using polycontrast filters
   d. Mounting
C. Troubleshooting
   1. Dust spots on print
   2. Over/underexposure
   3. Over/underdevelopment
   4. Film developer blotches
   5. Other problems

V. DIGITAL
A. LPI, PPI and DPI
B. Prepare a photo for reproduction using Adobe Photoshop
   1. Cropping
   2. Sizing
   3. Sharpening
   4. Color correction using levels/curves
   5. Dodging/Burning
   6. Saving in JPEG, TIF, EPS or PSD
C. Import
   1. Flatbed scanner
   2. Negative scanner
   3. Digital camera

VI. PHOTOJOURNALISM
A. Caption writing
B. Writing/editing stories and headlines
C. Page layout
   1. Modular layout
   2. Typography
   3. Cropping photos
D. Different types of photojournalism
   1. News
   2. Feature
   3. Sports
   4. Still life
   5. Portraits
E. Staff organization
   1. The role of the photographer
   2. Filing negatives, contacts and prints
   3. Working on deadline
F. Law and ethics
Plan photographs in relation to assignments from an editor

Activities: • Put a topic on the board and have students come up with (on their own, at first) different ways to cover this subject going beyond the obvious. Then discuss these ideas, noting the time frame in which they can be accomplished.
• Have students list what types of photos they would like to see in the yearbook. Have them be specific, listing people, angles, time of day, location, etc.
• Have students locate a staff box in a relatively small newspaper or magazine, preferably one which lists more than just the editor. Discuss the roles and responsibilities of each person on that staff with students speculating at first. Have students write a job description for a staff photographer. Then, have them refer to their manual for the responsibilities of each member on their staff, including photographers.
• Have students complete a photo assignment form.

Assessment: • Evaluate ideas for coverage given by students.
• Evaluate job descriptions written by photographer.
• Evaluate completed photo assignment form.

Vocabulary: candid, posed shot, appropriate subject matter

Illustrate events with appropriate photos and captions

Activities: • Discuss what is ‘appropriate.’
• Discuss ethics and law: what is legal and what is ethical.
• Using examples of photos of questionable ethics (including examples of war photos, disasters, suicides, murders, etc.) discuss why these photos were used. Given the situation, who would use them? Why?
• Pick a photograph out of a magazine and explain what it means to you – in depth. Look at the technical quality and composition, of course, but also look beyond that. Look at what the image means to you.
• Look through a local newspaper, a daily or weekly, and find examples of timely, photojournalistic photo. Have students discuss why these photos are appropriate or why they aren’t.
• Go through a series of magazines, newspapers and other publications and cut out 10-15 images that tell the rest of the class something about you. Each image should give everyone some insight into your character. This is a good assignment to do at the beginning of the semester. Make sure each student orally presents the clippings, mounted on construction paper (or whatever) to the rest of the class and explains what they mean.
• Some ‘news’ events require photo illustrations and not ‘field’ work. Help students set up a ‘studio’ in the classroom using whatever light sources are available. You might try illustrating ‘drug use’ using flour and a mirror and a dollar bill. You might try illustrating crime with a pair of handcuffs and some other props from your local law enforcement agency. You might try illustrating ‘spring’ with some flowers. Experiment. The point here is to look beyond the obvious and to realize that some ‘news’ events require more thought.

Assessment: • Given a legal dilemma, what is student’s reasoning for the legality or illegality of the situation?
• Have students write a persuasive paper trying to persuade an editor to use a questionable photo. They should take the position of being the photographer.
• Have students pick the ‘most’ appropriate photo for a given event and explain their reasoning.


Operate a 35mm single-lens reflex camera with a variety of lenses

Activities: • Complete photo assignments as requested.
• Using cardboard or other material, cut out a frame approximately the size of a 35mm piece of film. Have students hold it 6-8 inches in front of their face to simulate a camera, looking around the school for assignments.
• Using a variety of lenses, demonstrate the different angles of view by allowing students to look at a fixed subject from a fixed distance with different lenses. Be sure students understand the basic lenses: wide angle, normal lens, zoom and telephoto.
• As an alternate assignment, have students shoot the ‘macro’ world. Using a close-up lens or filters, students should take pictures of a piece of something and have others guess what it is. It’s fun to post these and have other students guess what the pictures are of. Any photographer whose picture remains unidentified should win some award. The idea here is to look beyond the obvious and to pay attention to detail. Be careful, these pictures often require additional light.

Assessment: • Evaluate photo assignments.
• Test how well (and fast) students can load film in a camera by having them load it while walking across the room. Give them room to walk about 30 steps at a fast pace and evaluate them on whether they can securely load the camera before walking the distance.

Vocabulary: wide-angle, zoom, fisheye, telephoto, normal, single-lens reflex (SLR), filter, film rewind, lens
release, focus, focus ring, battery check, film rewind knob, ISO dial, PC cord, hot shoe, shutter release, shutter speed dial, aperture dial, depth of field preview, lens speed, exposure, parallax, aberration, angle of view, bellows, focal plane shutter, infinity, lens mount, lense tissue, lens hood, self timer

Operate a flash

Activities:
- Allow students to use a flash either for one of the photo assignments or for a class exercise in artificial lighting.
- Find examples of photographs used in newspapers or magazines taken with a flash. Why was a flash used? What problems did this create?
- Take a trip to a local studio and have photographer (perhaps the school portrait photographer) demonstrate the set-up and use of studio lights.
- Using a ‘model’ (preferably a student in class) demonstrate the harsh lighting of direct flash and the less harsh light of bounced flash by firing a flash and having students observe students. This works best in a dim, but not dark room. You can also use a slide projector or transparency projector to demonstrate this effect.

Assessment:
- Evaluate photo assignment completed using flash.
- Given a specific lighting situation, have students predict the results in terms of harshness of light and direction/intensity of shadows.

Vocabulary:
- bounce, direct, ambient light, available light, fill flash, guide number, dedicate flash, flash synch, PC cord, existing light

Demonstrate knowledge of ISO, aperture, and shutter

Activities:
- Complete photo assignments.
- Show a series of photos taken of the same subject with different f/stops. Have students assign possible f/stops to the appropriate photos.
- Show a series of photos taken of the same subject with different shutter speeds. Have students assign possible shutter speeds to the appropriate photos.

Assessment:
- Evaluate photo assignments.
- Given appropriate photos, have students identify the direction of light and any compensation that would be necessary to get a properly exposed subject.

Vocabulary:
- tungsten, florescent, daylight, reflected, incident, backlighting, frontlighting, sidelighting, existing light, available light, ambient light, exposure compensation, exposure, harsh sunlight, partly cloudy, cloudy, glare, incandescent, bracket, timed exposure, depth of field

Read a light meter and evaluate light

Activities:
- Make a meter-reading map of the school: Using a built-in or hand-held light meter and a map of the school record settings at various locations at various times of the day. Be sure to note the time of day and direction.
- Set up a ‘studio’ portrait in the classroom using studio lights or a slide projector or a transparency projector or even a window. Demonstrate the various directions of light and how they can ‘trick’ meter. Then discuss compensation for the ‘tricks,’ especially backlighting which requires additional exposure to allow more light to reach the subject.
- As an alternate assignment, have students take a photo, with black and white film, illustrating a color. For example, shoot pictures of ‘yellow.’ It’s helpful if they learn the concept of complementary colors and how to use colored filters (if they’re available) first. To keep things fun, make them shoot it all using available light or studio lights. No flash allowed.
- Under various circumstances, have students evaluate the quantity, quality and direction of light.
- Take a photo using backlighting, front lighting and sidelighting and evaluate the various effects of each.
- Display photos taken under daylight, tungsten light and fluorescent light illustrating the various problems of each.

Assessment:
- Evaluate meter-reading map.
- Evaluate photo assignments.
- Given appropriate photos, have students identify the direction of light and any compensation that would be necessary to get a properly exposed subject.

Vocabulary:
- tungsten, florescent, daylight, reflected, incident, backlighting, frontlighting, sidelighting, existing light, available light, ambient light, exposure compensation, exposure, harsh sunlight, partly cloudy, cloudy, glare, incandescent, bracket, timed exposure, depth of field

When buying a digital camera, consider:
- the maximum file size in megapixels;
- compatibility with current accessories;
- file storage in the camera and archiving; and
- cost.
Apply principles of composition

Activities: • Show examples of the different composition techniques: s-curves, informal balance, formal balance, framing, repetition of shapes, leading lines, texture, etc. Have students explain why these are powerful composition techniques.
• As a photo assignment, have students shoot not a specific subject, but a concept such as repetition of shapes or framing. Every shot on the roll should demonstrate one of the techniques.
• Display various photos or give students copies of them. Have them pick which ones follow the Rule of Thirds and which ones don’t and why. Try to pick some that don’t follow the Rule of Thirds, but which are still good photos.
• It’s fun to start teaching the Rule of Thirds with a few games of tic-tac-toe.
• Show various photos where the photographer did not move in close enough to fill the frame. Contrast those with photographs where the photographer did fill the frame for impact. Show how filling the frame results in a more powerful photo.

Assessment: • Have students match proper composition technique with photo.
• Have students crop photos to conform to Rule of Thirds.

Vocabulary: balance, contrast, formal balance, informal balance, center of visual interest, Rule of Thirds, s-curves, framing, repetition of shapes, selective focus, leading lines, texture, tone, hue, pattern, stopping power, originality

Evaluate photographs for technical quality and composition

Activities: • Display photos of high and low contrast. Have students pick the appropriate ones.
• Display photos that violate good rules of composition and therefore aren’t effective. Have students pick the appropriate composition technique and how the photographer could have improved the photo.
• Display photos of poor technical quality due to inappropriate shutter speed or aperture use. Have students evaluate the photo stating what the photographer could have done to improve the photo.
• Have students complete a photo evaluation form for a classmate for each assignment. Before using the form for the first time, teach the students how to use it. Go over every line and do some sample evaluations.
• Have students find five photos that they consider to be good and five that they consider to be bad. Have them explain why. Use exchange publications for this exercise.
• Give students a contact sheet and have them pick the best print for the newspaper or yearbook and explain why. This is fun to do as a class exercise with the same contact sheet.

Assessment: • Check evaluations that students complete to make sure they are thorough and accurate.
• Given photos of varying contrast, have students pick the one with the highest contrast and the one with the lowest.

Vocabulary: technical quality, composition

Understand developing chemistry

Activities: • Put an x/y grid on the board with chemicals in the vertical access and ‘time, temperature, and agitation’ in the horizontal access. Have students fill in the chart as a group.
• Using some litmus paper from the chemistry department, demonstrate how developer is a basic solution (try to determine actual pH at different dilutions) and acetic stop bath and fixer are acidic (again, try to determine actual pH). You may have to use other acid/base indicators to determine actual pH. Note that stop bath with indicator contains bromocresol purple, an acid/base indicator. That’s why it turns purple when too much developer gets in it.
• Make a chart showing the chemicals used, times, temperatures and agitation rates for the film-developing process.
• Write out the various chemical reactions that occur during developing film beginning when the film is exposed to light.

Assessment: • Make a chart showing the chemicals used, times, temperatures and agitation rates for the film-developing process.

Vocabulary: grain, scratch-resistant coating, light-sensitive material, gelatin, anti-glare coating, plastic, silver halide, fog, emulsion, hypo, hypo-clearing agent, agitation, working solution

Evaluate darkroom equipment

Activities: • Have students make a print on the first assignment with a high-contrast filter and a low-contrast filter as well as the ‘right’ one. Make sure they do a new test strip with each one to demonstrate the difference in exposure.
• Demonstrate (or have a photo editor demonstrate) the equipment used in developing film and making a print.

Assessment: • Evaluate prints made with different filters.

Vocabulary: tank, reel, enlarger, negative carrier, timer,
polycontrast filter, film cleaner, trays, print tongs, print dryer, diffusion enlarger, condenser enlarger, lens, f/stop, aperture, easel, baseboard, easel

Process film

Activities: • Make a game out of practicing rolling film with two exposed rolls of film. Have two students compete against each other. The person who rolls the film the fastest on the reels to be used for developing keeps competing until he loses. The winner should get some reward. This can be done in the light.
• Process the film for assignments and other assignments as required.

Assessment: • Using the practice roll, have each student (for a grade) roll the film on an appropriate reel in the dark and put it in a canister. Check it. If it’s not done completely right, they should try again the next day (or significantly later in the period) until they get it right. Don’t allow them to develop film until they get it right.
• Evaluate processed film.

Vocabulary: develop, rinse, fix, negative, dense, thin, latent image, reticulation

Print photos

Activities: • Demonstrate (or have a student demonstrate) how to make a print, stressing negative placement, easel adjustment, enlarger height adjustment, choosing an f/stop, choosing a polycontrast filter, making a test strip, and developing the paper in the proper sequence including adequate rinsing time. Also stress and demonstrate darkroom cleanliness and the dangers of dirt and dust.
• Make the required number of prints for assignments 1-8 and other assignments as required.
• Have students bring in five small, favorite objects (1/2-3’). In the darkroom, put these objects on a piece of paper and expose them to light for a few seconds at a random f/stop (f/8 works well, usually). Semi-transparent objects (like money and glasses) work best. Then develop this photogram normally. When they’re dry, have students sign them with a felt-tip pen and display them. This is a good printing exercise and is fun to display for parents. This is an especially good exercise to convey the concept of density and contrast.
• Have students identify bleed photos, including photos that bleed across the gutter. Note examples where bad layout resulted in a face in the gutter. Discuss lack of communication between the photographer and the design team.

Assessment: • Have students write a narrative ‘how-to’ essay on how to make a print.
• Evaluate print quality.
• Use photogram grade as an ‘easy’ grade – a good reward.

Vocabulary: test strip, contact sheet, print, burning-in, dodging, enlargement, grain, graininess, print, enlargement, exposure, glossy paper, matte paper

Crop and scale photos

Activities: • Give students a scaling device and have them learn the concept of proportion for photographs. It’s also useful to show this on the computer, keeping the photograph in proportion. Show how one dimension can’t change without changing the other.
• Have students mark a photograph that you give them for reproduction in the yearbook.
• Demonstrate use of a proportion wheel. Using the photos marked for reproduction in the yearbook, use a proportion wheel to calculate the percentage of enlargement or reduction.
• Have students complete some proportion equations as a review of math.

Assessment: • Grade proportion questions.
• Given a photo and a space for it on the page, have students calculate percentage of enlargement or reduction.

Vocabulary: crop, enlarge, reduce, proportion wheel, fill the frame, merger

Lay out articles with photos

Activities: • Using newspaper photo pages or yearbook spreads as examples, have students sketch the pages using paper divided into columns or grids. Pay particular attention to internal margins, size of dominant photo, eyeline, etc.
• Using photocopies of 5-10 photos, have students pick photos and plan a layout. This can also be a photo-editing exercise. Pay particular attention to caption and copy placement.
• Using a layout previously designed by student, have another student use the same elements at the same size to create another layout. This is particularly useful for yearbook layouts from which four layouts can be made from one basic layout by flopping the layout horizontally and vertically.
• As time permits, you may want students to complete a sample news writing and/or feature writing fact sheet. Teach the basics about fact vs. opinion, direct/indirect quotations, and lead/quote/transitional writing, but don’t go into all the detail reserved for the writing students. As they will remind you, ‘we’re not here to be writers.’
• Have students write a story for a photo page. Make sure they know that the story should be typed and edited before turning in.
• Looking through exchange yearbooks, have students identify bleed photos, including photos that bleed across the gutter. Note examples where bad layout resulted in a face in the gutter. Discuss lack of communication between the photographer and the design team.

Assessment: • Grade photo page with story. Evaluate story on global criteria, marking editing mistakes as time permits. In other words, grade on content, not grammar, spelling and punctuation.

Vocabulary: lead, inverted pyramid, feature, news, editorial, fact, opinion, direct quote, indirect quote, quotation, attribution, transition, bleed

Photo-journalism Curriculum Guide
By Bradley Wilson
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Write captions

Activities:  • Using a well-respected publication, read some photo captions and determine what makes up a good caption. Be sure to stress how, particularly in magazines, a good caption goes beyond just stating the obvious.
  • Given a photo, have students write a complete caption. This is particularly useful around deadline time when photojournalism students can, as a class exercise, write complete captions for the publications answering the 5Ws and H.
  • Discuss: what’s wrong with a photographer writing their name on the back of a photo for a photo credit that they did not take? Talk about the value of the photo credit and taking pride in one’s work. Consider doing periodic displays around the school of the work photographers have done. Even consider displaying some pictures at local businesses carefully mounted with the photographer’s name prominently displayed on the outside.

Assessment:  • Evaluate captions based on whether or not the include the answers to the 5Ws and H, identify all recognizable people, include additional information, a kicker and a photo credit.

Vocabulary:  • caption, kicker, photo credit, 5Ws & H

Digital input

Activities:  • Take photos using a digital camera and bring those photos into a computer for digital editing.
  • Scan prints using a flatbed scanner for manipulation digitally.
  • Scan negatives using a negative scanner for manipulation digitally.

Assessment:  • Evaluate the students’ ability to use scanning software or digital camera.

Vocabulary:  • lines per inch (LPI), pixels per inch (PPI), dots per inch (DPI), pixel

Preparing a photo for reproduction digitally

Activities:  • Given a variety of photos crop them appropriately using Photoshop.
  • Given a variety of photos apply Levels or Curves to make the highlights, midtones and shadows look appropriate for the medium of reproduction.
  • Dodge and burn a variety of photos to make isolated areas lighter or darker as appropriate to retain detail in the highlights and shadows.
  • Apply Unsharp Mask to a variety of photos to compensate for imperfections in scanning.
  • Resize photos and resample as appropriate to suit the specific publication.
  • Use various color modes as appropriate for a given photo, including RGB, CMYK and Grayscale.

Assessment:  • Save file in a variety of formats (JPEG, GIF, TIF, EPS and PSD) and compare/contrast the various formats as appropriate for a specific medium/publication.

Vocabulary:  • LPI, DPI, PPI, highlights, midtones, shadows, Photoshop, color mode

Set up an assignment system and meet deadlines

Activities:  • After discussing the role of the photographer on a staff, have the photojournalism students develop an assignment system that they believe will work. After discussing these, explain the assignment system used by the newspaper and yearbook staff. Discuss its weaknesses, how they can be circumvented, and its strengths.
  • Give all assignments a deadline.
  • Using a schedule of upcoming events, have students pick an event to cover as an alternate assignment. Their coverage should more than just the obvious coverage. Then set deadlines for developed film, contact sheet and print as appropriate depending on lab availability.

Assessment:  • Evaluate the students’ ability to follow the assignment system devised for each assignment.

Vocabulary:  • photo assignment form, photo assignment calendar, deadline

Set up a system of keeping track of negatives and contact sheets

Activities:  • With the photography editor as a peer leader, have photojournalism students file their negatives, contact sheets and prints appropriately. Their name should be on the contact sheet and written on each print.

Assessment:  • Have students complete the appropriate forms and file negatives. Include the appropriate filing as part of the grade for an assignment.

Vocabulary:  • filing, negative sheet, contact
Research paper topics

You’re in the darkroom working with students. But what are those people who can’t work in the darkroom doing? Nothing. That’s not a productive use of class time. Classwork for other classes? That’s not photojournalism. Getting in trouble? That’s not good for your blood pressure. Further, some students won’t have a camera or won’t be able to afford the class. They need alternative assignments. Short or in-depth research papers can solve these problems. And the biggest problem they create is the extra grading workload. Making students present these papers orally helps to solve this problem. Here are some topics for research papers.

- Jacob Riis, Ansel Adams and some of the other famous historical figures in photography make good research papers.
- Research the impact that photos have on the news. A student survey might prove useful. Question: do photos impact the news? Pick a leading news event and see which one has more impact, a story alone or a story with a photo. Why?
- Do professional photographers have a sense of ethics? How can you tell? Look up the various codes of ethics that exist from organizations such as the Society of Professional Journalists. How do they limit photographers? How do they protect society?
- Are photographers subject to the same first amendment freedoms as writers? How can you prove or disprove this?
- Many court cases have been heard that impact the freedoms of photographers. Research several of these and report on them.
- Why was the first camera developed?
- Photography is basically chemistry. Research the basic chemical processes used in exposing and developing an image. What chemical structures are in use? What changes do they undergo?
- Many careers involve photography. Pick one. Research the impact photography has had on this career. For example, wildlife photography is a specific field of photography. What role does a wildlife photographer play? What equipment is required? Why might documenting wildlife be useful for society?
- Consider this question: When is it OK to digitally alter an image for a publication such as the New York Times? Consider the different levels of alteration such as modifications that can easily be done such as dodging/burning as well as the more complicated tasks of adding/removing people/objects.

Other assignment ideas

As the semester or year progresses, you may need other photo assignments to give your introductory photojournalism students. The best assignments tie into yearbook topics (particularly student life), but newspaper topics can work well for dedicated photojournalists. They give students a chance to shoot for the publication and the publication gets some variety. A photo credit can be a powerful motivator.

- **Plain & Fancy**: The object is to depict something plain and fancy in one picture. This is particularly challenging if the picture can’t be posed.
- **America**: Photograph something that is typically American.
- **Pick a letter of the alphabet**: Photograph abstract objects that suggest letters of the alphabet. The center of visual interest cannot be any writing, but must be abstract.
- **One Day**: Pick one day out of the school year and have students portray that one day.
- **Get ready**: Take pictures of other people, preferably students, getting ready to do something (to go to work, to go to school, to go the prom, to go on a date, etc.).
- **In season**: Photograph something that portrays the current season, winter, summer, fall, or spring. This must involve other students. For example, shoveling snow, raking leaves, washing cars, swimming, etc.
- **Technology away from home**: Photograph students using modern technology away from home.
- **My place**: Take pictures of students wherever they appear the most “at home.” This may be in their bedroom, watching television, or riding a bike.
- **All in the family**: Take pictures of students interacting with their families, washing dishes, on vacation, etc.
- **Up close**: Using a true macro lens, have students take extreme close-ups of everyday objects. See if they can figure out what the other students photographed.
- **Mug shot**: One of the most mundane assignments is the mug shot. Have students take a mug shot of someone they don’t know, practicing the fundamentals of lighting and composition.
Turning in a complete assignment means turning in:  
1. properly filed negatives or digital images;  
2. properly filed contact sheet with student's name on the back or digital image;  
3. print with student's name on the back and/or digital image with File Info complete;  
4. a complete caption for some assignment; and  
5. two complete evaluations by other student photographers.

### THE FIRST GRADING PERIOD
Week one will be filled with a lot of class changes, dealing with the start of school or the start of a new semester and all the paperwork associated with that. There is little coverage of essential elements during this week since students adding or dropping will miss it. However, for those students in attendance, it will set the foundation for the rest of the course. The other weeks will also build a solid foundation on which the rest of the photographer's career will be based.

### ASSIGNMENTS

#### Illustrating with photos
OBJECTIVE: To get students to understand photography as an art and as a journalism medium that can carry a message
METHOD: This is a good time to bring in some of the history of photography and photojournalism and to show students how it has changed since the 1800s when photography was in its infancy. For classroom discussion and evaluation, have students find examples of photos that illustrate a specific point or convey a specific message. These photos can come from any printed media. They should turn in the photo with a detailed description of the message it conveys. This can also be used as the beginnings of a clip file.

#### Assignment 1: Anything goes
OBJECTIVE: Quite simply, to get students out taking pictures. Being a photojournalism course, these pictures should involve people, preferably people at the high school. This is also a good chance to assess who knows what. Also helps to get students familiar with the equipment and procedures.
METHOD: Tell students to take pictures of other students doing something, preferably away from the school (to get a greater variety of shots). It's that simple. Be sure that they have some other negatives that they can print if their film doesn't come out. Don't set them up for failure. Be prepared to work with every single photographer one-on-one during the first two assignments. It also helps to have other student photographers come and work with them. Make the lab available outside of class if possible when you can give them their undivided attention. Have the class evaluate the photos as a group. Display them with each photographer's name under the photo.

### Assignment 2: Lighting
OBJECTIVE: To help students realize that photography is painting with light. Light can be a photographer's best friend or worst enemy depending on how it's manipulated.
METHOD: After discussing different lighting directions, colors and intensities, have students take a roll of film that illustrates three completely different types of lighting. It really doesn't matter how they interpret that, just make sure they can articulate the differences in the light once they have made their final print. The differences should be apparent on the contact sheet, but each student needs to make only one print illustrating one type of lighting which they should explain to the class. Different directions (frontlighting, sidelighting, backlighting, etc.) of light are the easiest to illustrate, but some students will choose different intensities (sunny day, cloudy day, indoors, etc.). Have the students evaluate each other's photo using a photo evaluation form. Also evaluate and display them as a group.
### THE SECOND GRADING PERIOD

The second grading period will allow students to become completely familiar with their camera and darkroom procedures. By the end of this time, they should be able to take pictures under most lighting conditions and reliably develop the film and make the prints.

### ASSIGNMENTS

#### Assignment 3: Action

**OBJECTIVE:** After reviewing the principles of shooting fast action (using a fast shutter speed), this assignment gives students practice. Further, the pictures must be of the action with little wasted space. Move up close. Fill the frame.

**METHOD:** Any action goes. Football practice. Riding bikes. Jogging. But it must be more than just students walking. Fast action. And they must either stop the action or use panning to render the moving subject clear. Stress the importance of applying the Rule of Thirds and other composition techniques while also concentrating on proper exposure.

#### Assignment 4: Selective Focus

**OBJECTIVE:** Assignment 3 dealt with using the appropriate shutter speed. Assignment 4 is as important: using the appropriate aperture. The idea here is to render the background out of focus by using a low aperture such as f/4, f/2.8, f/2 or f/1.4. By blurring the background, emphasis is placed on the subject. This is also an excellent time to stress filling the frame. Move up close.

**METHOD:** The subject of the picture can be doing anything. Restricting the subjects to other students is fine. Just make sure emphasis is placed on using low depth of field and proper exposure. This assignment can be done in conjunction with assignment 5 (on the same roll), but one print should be required for completion of each assignment.

#### Assignment 5: Rule of Thirds

**OBJECTIVE:** With assignments 3 and 4 complete and the students tired of equivalent exposures and learning theory and darkroom techniques, it’s time to get serious about composition. By the completion of this assignment, students should be able to accurately apply the Rule of Thirds (and other composition techniques such as framing, s-curves and repetition of shapes) to any assignment.

**METHOD:** Again, any student can be the subject of this assignment. They must be doing something. Again, stress filling the frame and moving up close. Remind the photographers to use low depth of field and to watch for appropriate lighting. Then they should concentrate on good composition techniques. Look for framing elements. Look for getting the subject out of the center of the frame. Watch for mergers.

### Schedule

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Concentrate on moving up close and filling the frame. Don’t overlook basic composition rules and good lighting. Remember, photography is painting with light.
THE THIRD GRADING PERIOD
The third grading period is the culmination of all the knowledge you have been passing along to the students. By now they should be familiar with taking pictures, developing film and making prints — under almost any conditions. Now they need to work on doing it better and faster. Teamwork, dependability and refining skills will be the focus of the third six weeks and these concepts can be carried into a second semester if necessary.

ASSIGNMENTS
Assignment 6: Academics
OBJECTIVE: By now, undoubtedly; the yearbook is in full swing. Using photojournalists to take some yearbook pictures gives them yearbook experience and brings variety to the book. With academics as the focus, this assignment gets photojournalism students out shooting around the school and helps them learn what it means to work for a publication.

METHOD: It’s helpful if the academics section editor or yearbook editor provide some guidance on what types of pictures might go in the academics section of the yearbook. It needs to be more than students staring at books. Look for diversity. Students dissecting frogs or cats. Maybe doing a problem at the board in math class. Maybe acting out a skit in English. What about putting up a bulletin board in social studies. Move up close. Fill the frame. Watch the lighting. Think about composition. Don’t forget the Rule of Thirds.

Assignment 7: Student Life
OBJECTIVE: Like assignment six, this assignment (which works well with assignment 8) gives students a good chance to take some publication-quality pictures. For this assignment, student life, it might be helpful to discuss assignments 6, 7 and 8 at the same time so students can have more time to get a variety of shots especially in the winter when outdoor activities are scarce.

METHOD: This will be a good lesson in time management and planning as well as photography, especially if used in conjunction with assignment 8. Emphasize moving up close and filling the frame. Also require that all pictures be taken off campus and away from school time. That insures variety and a true depiction of student life, not academics.

Assignment 8: The photo essay
OBJECTIVE: To get students to apply all of the skills they’ve learned this semester to produce a page with 5-7 photos on one topic incorporated into a layout with copy.

METHOD: Because of the depth of this assignment, allow students to use some photos from previous assignments — but no more than two photos on the final layout can be from previous assignments. That means at least three pictures must be taken for this assignment on a topic of the student’s choice (student life works well). Look for variety: up-close shots, medium shots, “group” shots. Look for photos that fill the frame and do more than just depict the scene. They should give meaning to it. Also require a simple layout (a yearbook spread is easier than a newspaper photo page because there are more rules they can grasp for yearbook layout), complete captions and at least a headline if not a short story.
MUST WRITE ON THIS PAGE

MULTIPLE CHOICE QUESTIONS

1. A common measure of a film's sensitivity to light is:
   a. latitude
   b. panchromatic
   c. contrast
   d. film speed
   e. emulsion

2. Selecting a ________ with the proper contrast grade for a negative is one of the most fundamental choices a darkroom technician can make when printing:
   a. filter/paper
   b. developer
   c. lens
   d. safelight
   e. none of the above

3. You can sharpen, retouch, redefine, clone and otherwise completely manipulate the photographic image with:
   a. the enlarger
   b. the camera
   c. the computer
   d. all of the above
   e. none of the above

4. Most publication photographs should be:
   a. of the photographer
   b. of cheerleaders
   c. of posed subjects
   d. of candid subjects
   e. of groups of people

5. The photojournalist known for bringing to light how millions of immigrants had to live in overcrowded slums and eke out pitiful wages at enslaving jobs in the early 1990s was:
   a. Jacob Riis
   b. Ansel Adams
   c. Lewis W. Hine
   d. Tom Howard
   e. Alfred Stieglitz

6. Mottled or sand-like effect that appears when a negative is enlarged is:
   a. reticulation
   b. grain
   c. distortion
   d. resolution
   e. latitude

7. To eliminate reflections/glare from nonmetallic surfaces use a:
   a. neutral density filter
   b. blue filter
   c. polarizing filter
   d. yellow filter
   e. conversion filter

8. A layer of light sensitive material on paper or film is called:
   a. resolution
   b. emulsion
   c. grain
   d. mineral deposits
   e. tita...
19. As a general rule there is approximately _____ of the total amount of depth of field in front of the point of focus and ____ behind the point of focus.
   a. 1/2, 1/2
   b. 1/4, 1/4
   c. 1/4, 1/2
   d. 1/2, 1/4
   e. 1/2, 1/2

20. A lens with a narrow angle of view which is used for nature, sports and candid photography is a:
   a. wide angle lens
   b. normal lens
   c. fisheye lens
   d. telephoto lens
   e. outdoor lens

21. Electronic flash and _____ light are the same when shooting with color film.
   a. incandescent
   b. daylight
   c. fluorescent
   d. tungsten
   e. candle

22. To achieve minimum depth of field a photographer would:
   a. open up, get closer to the subject and use a fast shutter speed
   b. open up, get farther from the subject and use a slower shutter speed
   c. stop down and get closer to the subject
   d. put on a long lens on the camera, open up and get closer
   e. set the camera on automatic and pray

23. A lens which provides the most depth of field but may cause distortion is:
   a. wide angle lens
   b. normal lens
   c. zoom lens
   d. telephoto lens
   e. none of the above

24. A curtain of fabric or metal foil inside the camera is:
   a. an iris shutter
   b. a leaf shutter
   c. a focal plane shutter
   d. an auto focus shutter
   e. parallel shutter

25. A normal lens for a 35mm negative would be a _____ focal length lens.
   a. 28 mm
   b. 135 mm
   c. 80 mm
   d. 35 mm
   e. 50 mm

26. The technique of agitation of the tray during processing of sheet film, plates or prints by lifting and lowering the tray’s sides and ends is:
   a. not recommended
   b. recommended
   c. only for darkroom amateurs
   d. outdated
   e. none of the above

27. and ______ work together to determine exposure.
   a. shutter speed, focal length
   b. light, light meter
   c. lens size, aperture
   d. aperture, shutter speed
   e. film, camera

28. Deciding whether to set the f/stop or the shutter speed first will depend on the ________.
   a. the subject
   b. time of day
   c. type of developer to be used
   d. type of camera
   e. none of the above

29. A major responsibility of the publication’s photographer is to use photographs to:
   a. make friends
   b. tell a story
   c. sell newspaper or yearbooks
   d. capture action
   e. gain photo credits

30. The eye is most readily attracted to ________ areas on a print.
   a. dark
   b. red
   c. yellow
   d. blue
   e. light

31. ________ is a composition technique that is effective for emphasis of the subject by using another object that is also in the picture, usually in the foreground.
   a. framing
   b. rule of thirds
   c. balance
   d. emotion
   e. center of interest

32. After processing, if you see a milky-white substance in the clear portions of your negative, you should ________ for a longer period of time.
   a. develop
   b. wash
   c. fix
   d. stop bath

33. The difference in densities of various areas of a negative is the:
   a. latitude
   b. panchromatic
   c. contrast
   d. film speed
   e. emulsion

34. Any compound of silver and a halogen, e.g. silver chloride, silver iodide, silver bromide is a:
   a. silver wave
   b. silver halide
   c. simple silver
   d. silver sine
   e. silver filter

35. Ethics and photography involve:
   a. how well a photographer can take a photograph
   b. what kind of camera a photographer has
   c. whom the subject is
   d. a photographer’s legal background
   e. a photographers moral values

36. The ability of a film to record fine details is:
   a. latitude
   b. resolution
   c. contrast
   d. panchromatic
   e. emulsion

37. Fixing your prints makes them permanent by:
   a. hardening the emulsion
   b. changing the silver salts to silver halide
   c. removing undeveloped light sensitive halide
   d. coating emulsion with a non-light sensitive layer, preventing further exposure
   e. stopping the action of the developer

38. A photographer shoots and image but has not moved up close to fill the frame. What can the page designer do to improve this photo?
   a. increase the resolution to see more detail
   b. reshoot the image himself
   c. use the magnifying glass in Photoshop to zoom up close
   d. crop the image to eliminate unnecessary details
   e. use a blur filter to blur the background
39. To bring an original print image into the electronic environment when manipulating photographs on the computer, the image must first be:
   a. matched
   b. digitized
   c. computed
   d. evaluated
   e. desensitized

40. Subject illumination that is most likely to give texture to the subject, giving it some depth and helping it not to appear so flat, is:
   a. back lighting
   b. front lighting
   c. key lighting
   d. side lighting
   e. average lighting

41. One of the photographers hired by the Farm Security Administration to record the Depression of the 1930s on film was:
   a. Dorothea Lange
   b. Matthew Brady
   c. Ansel Adams
   d. John Eastman
   e. Alfred Hines

42. The _______ regulates the length of time light is permitted to strike the film:
   a. sync cord
   b. depth of field preview
   c. hot shoe
   d. aperture
   e. shutter

43. The lens that has a variable focal length is the:
   a. wide angle lens
   b. normal lens
   c. fisheye lens
   d. zoom lens
   e. telephoto lens

44. The camera part that is used for displaying the limits of the scene to be recorded by the camera is the:
   a. parallax point
   b. viewfinder
   c. depth of field preview
   d. aperture
   e. shutter

45. Agitation is important for both film development and paper development because:
   a. It maintains an even developing temperature
   b. It ensures uneven development.
   c. It ensures that fresh developer is always working on the exposed emulsion.
   d. It is a listed procedure.
   e. None of the above.

46. To minimize the effect of a “busy background” a photographer would:
   a. set the focus at infinity
   b. use the smallest aperture possible
   c. use a very fast shutter speed
   d. change lenses
   e. use a larger aperture and move in close to the subject.

47. A piece of glass or other transparent material, curved so as to form an image by the refraction of light or other radiation is:
   a. shutter
   b. reflection
   c. lens
   d. aperture
   e. reversal image

48. The file format most appropriate for saving images to be published on the Web is:
   a. TIF (Tag Image File Format)
   b. JPEG
   c. GIF (Graphic Interchange Format)
   d. EPS (Encapsulated PostScript)
   e. PSD (Photoshop)

49. When the flash is placed away from the camera, usually to one side this is:
   a. off line
   b. off camera
   c. off shooting
   d. off stage
   e. off shoe

50. __________ objects permit the passage of light but scattering it so that objects behind cannot be easily distinguished.
    a. opaque
    b. translucent
    c. tonal
    d. clear
    e. black

51. There are small, round, and clear spots on the negatives. What is the problem?
    a. The developer was not diluted properly.
    b. Stop bath solution was not used.
    c. The film was fixed improperly.
    d. There were air bubbles on the film during development.
    e. The developing tank was not clean.

52. With the negative in place in the enlarger, focusing is accomplished with the enlarging lens:
   a. wide open
   b. stopped down one stop
   c. stopped down two stops
   d. stopped down as far as possible
   e. none of the above

53. The name of the special effect that uses a slow shutter speed and a moving camera that follows the subject is __________.
    a. blur
    b. panning
    c. bas-relief
    d. posterization
    e. reticulation

54. If the print turns yellow and dark after processing has been completed, what is the problem?
   a. The developer is exhausted.
   b. The stop bath solution was too strong.
   c. The fixer is exhausted.
   d. The paper is outdated.
   e. The print washed too long.

55. Given a shutter setting of 1/2000, you would let in _______ times as much light by setting the shutter at _________.
    a. 1/125
    b. 1/250
    c. 1/500
    d. 1/1000
    e. 1/2000

56. The chemical that shortens the required wash time of the film is:
   a. photo-flo
   b. fixer
   c. hypo clear
   d. wetting agent
   e. none of the above.

57. The ISO/ASA rating of a film tells you:
   a. the sensitivity of the film to light
   b. what type of camera in which the film will fit
   c. the format of the film
   d. the speed of the lens
   e. what time of day at which to shoot

58. The term aperture refers to:
    a. the size of the lens opening
    b. the speed of the shutter
    c. the film format of the camera
    d. the speed of the lens
    e. the chemical reaction of developer to stop bath...
59. When using a 200mm lens, what is the slowest recommended shutter speed that should be used without a tripod?
   a. 1/500
   b. 1/250
   c. 1/125
   d. 1/100
   e. 1/60

60. A line drawn on a photograph to indicate the boundary of the area that is to be used when reproduced photo-mechanically is a:
   a. crop mark
   b. cyanotype
   c. cut line
   d. cutaway
   e. cutout

61. The process by which a surface receives light is:
   a. illumination
   b. metering
   c. candle light
   d. exposure
   e. electricity

62. The process of converting a latent image into a visible one is:
   a. dichroic
   b. fixation
   c. development
   d. induced
   e. condensation

63. An equivalent exposure for 1/60 @ f/5.6 is:
   a. 1/1000 @ f/16
   b. 1/500 @ f/11
   c. 1/250 @ f/8
   d. 1/100 @ f/4
   e. 1/50 @ f/2

64. An exposure that is NOT equivalent to 1/125 @ f/8 is:
   a. 1/100 @ f/11
   b. 1/250 @ f/5.6
   c. 1/50 @ f/16
   d. 1/250 @ f/5.6
   e. 1/50 @ f/2.8

65. Developing film in warm developer will:
   a. decrease development time
   b. increase contrast
   c. increase grain
   d. decrease tonal range
   e. all of the above

66. The supplemental text, as in a book, magazine, and/or catalog that accompanies and explains the subject matter of a photographic image, is:
   a. a legend
   b. a caption
   c. an illustration
   d. a crop
   e. not necessary

67. The reduction of the size of the lens aperture is:
   a. widening up
   b. opening up
   c. stopping up
   d. stopping down
   e. opening down

68. The image in a photosensitive material, after exposure but before it is made visible and useable by development is:
   a. contrasty image
   b. flat image
   c. underexposed image
   d. overexposed image
   e. latent image

69. Three factors that are important to film processing are:
   a. time, intensity and agitation
   b. temperature, intensity and agitation
   c. time, temperature and agitation
   d. sensitivity, intensity, and agitation
   e. not necessary

70. If the background is causing inaccurate light meter readings, the photographer can:
   a. stop down the aperture one stop.
   b. move further back from the subject and take the light meter reading.
   c. move close to the subject and take the light meter reading.
   d. open up the aperture one half stop.
   e. none of the above

ESSAY QUESTIONS
Answer each question thoroughly on a separate piece of paper. Be sure to read your essay and correct grammar, spelling and punctuation errors when possible.

1. Describe, in detail, the process of making a print. Be sure to include all chemicals, times, temperatures and agitation rates.

2. You’re out taking pictures on a bright sunny day of the band practicing for marching contest. The sun is behind you. While the band members are marking time and standing relatively still, what would be a good exposure using TMax 400 film? Why?

3. After you take that first picture, you notice an annoying pole in the background, and you decide that you need to minimize depth of field. What would be a better exposure? Why?

4. Then, all of the sudden, a cloud comes overhead, dimming the light. What would be an appropriate exposure under these partly-cloudy conditions? Why?

5. With the clouds overhead, the band starts moving. Since you’re taking pictures of the percussion section and you want to stop the movement of their sticks, what would be an exposure that would stop this fast movement? Why?

6. You’re preparing a photo for reproduction in the literary magazine that uses a line screen (LPI) of 133. List all the steps you would go through to prepare this photograph including the specific file format, color mode and resolution for the photo? (5 pts.)
ESSAY QUESTIONS

1. Describe, in detail, the process of making a print. Be sure to include all chemicals, times, temperatures and agitation rates. (15 pts.)
   A. Prepare materials including chemical trays, tongs, the enlarger, easel and filters.
   B. Place negative in negative carrier.
   C. With only safelight illumination, focus with lens wide open.
   D. Choose an appropriate aperture that is not too light or too dark.
   E. Choose an appropriate filter based on the contrast range of the negative. Higher-numbered filters raise contrast. Lower-numbered filters lower contrast.
   F. Make a test strip to determine the time of exposure.
   G. Based on the test strip, expose the properly cropped image.
   H. Develop picture using the following times (suggested only)
      Dektol: 1 minute, room temp., constant agitation
      Stop bath: 10 seconds, room temp., constant agitation
      Rapid fixer: 5 minutes, room temp., periodic agitation
      Rinse: 20 minutes in running water, room temp., constant agitation
   I. Clean up materials.

2. You're out taking pictures on a bright sunny day of the band practicing for marching contest. The sun is behind you. While the band members are marking time and standing relatively still, what would be a good exposure using TMax 400 film? Why? (3 pts.)
   Based on the f/16 rule (exposure on a bright/sunny = f/16 at 1/ISO of film), the appropriate exposure would be 1/500 at f/16. [Remember that an exposure consists of both an aperture and a shutter speed.]

3. After you take that first picture, you notice an annoying pole in the background, and you decide that you need to minimize depth of field. What would be a better exposure? Why? (3 pts.)
   Because you're trying to minimize depth of field, you must decrease the aperture. In order to decrease the aperture and still maintain an equivalent exposure, you must increase the shutter speed. A better exposure would be f/11 at 1/1000. If the camera permits, a still better exposure would be f/8 at 1/2000.

4. Then, all of the sudden, a cloud comes overhead, dimming the light. What would be an appropriate exposure under these partly-cloudy conditions? Why? (2 pts.)
   You loose about two stops of light on a partly-cloudy day. This would make your exposure 1/500 at f/8 (or f/5.6 at 1/1000).

5. With the clouds overhead, the band starts moving. Since you're taking pictures of the percussion section and you want to stop the movement of their sticks, what would be an exposure that would stop this fast movement? Why? (2 pts.)
   Since you want to stop movement, you need to use the fastest shutter speed possible, 1/1000 on most cameras. Since your initial exposure was 1/500 at f/8, the only possible equivalent is 1/1000 at f/5.6.

6. You're preparing a photo for reproduction in the literary magazine that uses a line screen (LPI) of 133. List all the steps you would go through to prepare this photograph including the specific file format, color mode and resolution for the photo? (5 pts.)
   (1) Crop; (2) Adjust levels/curves; dodge/burn; (3) Size to 266 ppi at desired size; (4) Unsharp mask; (5) Change to appropriate color mode—grayscale or CMYK; (6) Save as TIFF file.
VOCABULARY

SW’S & H
The essentials of any story; who, what, when, where, why and how.

ABERRATION
Optical defects in a lens that cause distortion.

ACETIC ACID
A component of stop bath that neutralizes the developer, CH₃COOH.

ADAMS, ANSEL
A famous Western landscape photographer who developed the Zone System for exposure, processing and printing control; founded the Friends of Photograh; and was instrumental in helping photography achieve the status of fine art.

AGITATION
The mixing of chemicals by physically moving the container containing the chemical. One of the three factors (including time and temperature) affecting the rate at which a chemical reaction, such as developing, occurs.

AMBIENT LIGHT
See existing light

ANGLE OF VIEW
The area visible through a lens or by a light meter.

ANTI-GLARE COATING
A substance on a lens designed to prevent glare cause by lighting bouncing off the glass elements of the lens.

APERTURE
The opening of a lens through which light passes.

APERTURE DIAL
The portion of a lens which allows a photographer to choose the ¥stop.

APPROPRIATE SUBJECT MATTER
A subject which, on any given assignment, fits the parameters of the assignment and is in good taste.

ASA
See ISO

ATTRIBUTION
The part of a text block which tells the reader who made an opinionated statement quoted by the writer; the most common verb for attribution is ‘said.’

AVAILABLE LIGHT
See existing light

B/A
Black area, the area left on a layout into which photographs are placed by the printer.

BACKLIGHTING
Lighting that comes from behind the subject causing the meter to be underexposed.

BALANCE
Arrangement of shapes, colors or areas of light and dark that complement one another.

BASEBOARD
The portion of an enlarger on which light passing through the negative is projected.

BATTERY CHECK
The part of the camera which allows a photographer to check how much power is remaining in a battery.

BELLows
A part of a lens or enlarger that is light-tight and made of collapsible cloth or other material used to aide in focusing the image.

BLEED
A photograph that extends all the way to the edge of a piece of the paper on which it is printed. Only possible in trimmed publications such as yearbooks.

BODY COPY
See text

BOUNCED LIGHT
Light that is reflected off another surface before reaching the subject; softer than direct light.

BOURKE-WHITE, MARGARET
A photojournalism who was one of the first staff photographers for Life magazine. She also photographed the beginnings of WWII in Russia, flew on bombing missions and covered the liberation of Jews at the end of the war. One of her most famous series of photos is of Mahatma Gandhi.

BRACKET
A technique used by photographers to insure that a properly exposed picture is taken. One picture is taken based upon a meter reading, another is taken at a lower exposure and another is taken at a higher exposure.

BURNING-IN
The act in print a photo of making a light area of the print darker by exposing it to more light while not permitting it to reach the other areas of the print. See also dodging.

CAMERA OBSCURA
Light dark room, a device used by early painters which was the predecessor to the photographic camera.

CAMERON, JULIA MARGARET
An English woman who was a member of the Pictorialist movement in England during the 1800’s. She is best known for her striking portraits of her friends, including Alfred Lord Tennyson and Sir John Herschel.

CANDID
Unposed photographs.

CAPTION
The portion of a layout which explains what is happening in a photograph. Captions are place touching the photograph. Also called cutlines. Often includes a kicker and photo credit.

CENTER OF VISUAL INTEREST
The element in the photograph that the viewer first notices, CVI.

CLOUDY
A type of lighting cause when the majority of light from the sun is blocked by clouds.

CMYK
A color mode (cyan, magenta, yellow, black) designed for output in four layers four printing in the four-color process.

COLOR MODE
The mode of a digital image which depends on the output of the image; grayscale, RGB or CMYK are common modes.

COLUMN
A vertical division of a layout which aides in giving structure to the page.

COMPOSITION
The arrangement of elements in a photograph.

CONDENSER ENLARGER
An enlarger with a sharp light source that passes straight through the negative without being diffused. Allows prints of high contrast and definition to be made. Negative imperfections such as dust spots and scratches are more apparent on prints made with this type of enlarger. See also diffusion enlarger

CONTACT SHEET
A type of print made with the negatives in direct contact with the paper.

CONTRAST
The difference between the blackest black of a print or negative and the whitest white. The greater the difference, the higher the contrast.

CONTRAST GRADE
A number which indicates the relative contrast of photographic paper. The higher the number, the more the image contrast is increased.

CROPPING
The act of selecting just a portion of the original image for publication or enlarging.

CUTLINE
See caption

DAGUERRE, LOUIS
An early photographer who influenced development of photography with Daguerrotype.

DAYLIGHT
Existing light provided by the sun.

DEADLINE
The time when an assignment is due to be completed.

DECORATIVE TYPE
Typefaces not used for typical headlines or text which serve to decorate a page design and accent a story.

DEPENDED FLASH
A fully-automatic flash that illuminates the subject only with the light required and no more depending on the flash-to-subject distance and the ISO of the film being used.

DEKTOL
A common paper developer manufactured by Eastman Kodak.

DENSE
Negatives that are overexposed or overdeveloped are said to be ‘dense’ because they don’t transmit as much light as an ideal negative. See also thin.

DEPTH OF FIELD
The distance between the element in a photo closest to the camera and the element farthest from the camera that appear in acceptable focus. The greater the distance, the greater the depth of field. Wider apertures give lower depth of field.

DEPTH OF FIELD PREVIEW
A device on a camera which allows the photographer to preview which elements will appear in focus at a given aperture.
EXPOSURE
A combination of aperture and shutter speed that determines how much light reaches the light-sensitive emulsion.

EXPOSURE COMPENSATION
A change in exposure based on an atypical lighting situation. For example: the typical compensation for backlighting is to increase the exposure four times.

F/16 RULE
In bright sunlight with the camera set at f/16, the shutter speed is approximately equivalent to 1/ISO of the film being used.

F/STOP
A number used to indicate the relative size of the aperture. The larger the number, the smaller the lens opening. The numbers increase by multiples of the square root of 2. Typical f/stops for a lens begin at f/1.4 and increase to f/22 in the following order: f/1.4, f/2, f/2.8, f/4, f/5.6, f/8, f/11, f/16 and f/22. A difference in one f/stop indicates that half or twice as much lighting is reaching the film. For example: f/8 lets in twice as much light as f/11.

FACT
A statement that can be proven. Not an opinion.

FAST FILM
Film with a high ISO that has a high relative sensitivity to light. Example: 3200TMax

FEATURE
A type of story written with some interpretation that goes beyond just reporting the facts.

FILING
A system used to keep negatives, contact sheets and photographs organized for quick retrieval.

FILL FLASH
A technique using both available light and supplementary artificial light. The light from the flash is used to ‘fill-in’ the shadows made by the existing light.

'FILL THE FRAME'
A phrase used to remind photographers there should be no wasted space in a picture.

FILM CLEANER
A solution composed primarily of alcohol used to clean dust off of film.

FILM REWIND KNOB
The part of the camera which is turned to rewind the film back into the light-tight canister.

FILTER
A piece of colored glass or plastic used to affect the color of the light reaching the light-sensitive emulsion. Filters are used on a camera and in the printing process. See polycontrast filters and Polarizing Filter

FISHEYE
A type of lens that distorts the image but encompasses an extremely wide angle of view (near 180°), usually greater than 20mm in focal length.

FIX
The act of removing the unexposed silver halides from paper or film with fixer rendering the material insensitive to light.

FIXER
An acidic solution used to fix film or paper by converting unexposed silver halides into a form that is not sensitive to light and which can be removed by rinsing; the primary component of most fixers is sodium thiosulphate (Na$_2$S$_2$O$_3$•5H$_2$O).

FLASH SYNCH
The fastest speed at which the flash can be used to illuminate the entire frame with the shutter completely open.

FOCAL LENGTH
A measurement of the size of a lens, the distance between the film plane of the camera and the optical center of the lens focused at infinity.

FOCAL PLANE SHUTTER
A type of shutter located just in front of the film that opens either horizontally or vertically.

FOCUS
Adjustment of the subject distance on a lens to render the subject sharp.

FOCUS RING
The part of the lens which enables the photographer to focus the subject.

FOG
The portion of an image which has been converted into a visible image although it was not intentionally exposed. There are two types of fog: chemical fog and fog caused by accidental exposure to light.

FORMAL BALANCE
Symmetrical.

FRAMING
A composition technique which centers the visual interest in a photo is framed by objects in the foreground that are usually out of focus, lends depth.

FRONTLIGHTING
Lighting that illuminates the front of the subject which has a source behind the photographer.

GELATIN
The portion of the film in which light-sensitive silver halides are suspended.

GLARE
An unwanted reflection off a shiny surface; sometimes refers to unwanted light bouncing off the glass elements inside a lens.

GLOSSY PAPER
A paper with a highly reflective emulsion. See also matte paper.

GRAIN
The small silver crystals in a print or negative. When these crystals become visible, the image is said to be ‘grainy’. Graininess becomes pronounced with pushed processing and fast films.

GRAYSCALE
A color mode for black-and-white photos in any medium.

GRID SYSTEM
A system of layout in which the page is divided into small units which are filled in.

GUIDE NUMBER
A measurement of the intensity of light produced by a flash used to figure the appropriate exposure.

HALF TONE
An image composed only of dots used for reproduction on a printed page giving the illusion of a continuous tone.

HARSH SUNLIGHT
A type of lighting cause by light from direct light from the sun.

HEADLINE
The portion of a page layout with large type designed to summarize a story and grab the reader's attention.
HIGHLIGHTS
The lightest portions of a print, often the "highlight" of a person's eyes.

HOT SHOE
The part of a camera which allows an electronic flash to be fired at the same time as the shutter is released based on electrical contact with the camera.

HUE
A particular variety of a shade or color.

HYPO
A synonym for fixer.

HYPO-CLEARING AGENT
A chemical used to help remove fixer from the emulsion.

INCANDESCENT
Light that results when a substance is heated with electricity such as in a tungsten light bulb. See also fluorescent

INCIDENT
Refers to the light falling on a subject.

INDIRECT QUOTE
See quotation

INFINITY
As far as the eye can see, the maximum distance on which a lens can focus.

INFORMAL BALANCE
Not symmetrical.

INTERNAL MARGIN
The margin between text, headlines, captions, photographs and art on the page. The internal margin, usually one pica, should be consistent.

INVERTED PYRAMID
A style of writing most commonly applied to news stories in which the most important facts appear early in the story and less important facts later in the story. The copy at the end of the story can easily be cut to fill the space.

ISO
An abbreviation for International Standards Organization. A number assigned to film indicating its relative sensitivity to light. The higher the number, the more sensitive the film is to light.

ISO DIAL
The part of the camera which allows the photographer to set the appropriate ISO.

KICKER
A short (one or two word) statement at the beginning of a caption that serves as part of a caption to grab the reader's attention.

LANGE, DOROTHEA
Hired by the Farm Security Administration to document the Great Depression in the 1930s.

LATENT IMAGE
An invisible image formed when light strikes the silver halides in the film prior to development.

LEAD
The beginning of a story which serves to summarize the story and/or grab the reader's attention.

LEADING LINES
A technique which uses one part of the photograph to lead the viewer into another part of the subject.

LENS
A device designed to focus light on a given area such as a piece of film.

LENS HOOD
An accessory that attaches to the front of a lens to prevent lens glare; also called a lens shade.

LENS MOUNT
The part of the camera to which the lens is secured.

LENS RELEASE
A button which allows the lens to be taken off certain cameras.

LENS SPEED
A ‘fast’ lens has wider maximum aperture and transmits more light than a ‘slow’ lens. For example, a lens with a widest f/stop of f/2 is ‘slower’ than a lens with a maximum aperture of f/1.4. Lens speed is a common way of measuring lenses. Faster lenses tend to be more expensive and can be used in lower light situations.

LENS TISSUE
A soft, lintless tissue used to clean glass surfaces such as lenses.

LIGHT-SENSITIVE MATERIAL
Material such as photographic paper or film which reacts when exposed to light.

LINES PER INCH
The smallest portion of an image on a printed page; generally resembles an elliptical dot when magnified; the larger the dot, the more color is applied to the paper. For example, an 80% black dot applies more ink, and therefore appears darker, than a 20% black dot; do not confuse with DPI or PPI.

MAI TEE PAPER
A paper with an emulsion that does not reflect much light. See also glossy paper

‘MEANING’
Photographs must be more than just elements thrown together. Photography is art, and the art should have ‘meaning.’

MERGER
The part of a photo that merges with another part (or the border) unintentionally often generating distracting results.

MIDTONE
The middle tones of a print, generally the flesh tones, halfway between the black and white.

MODULAR LAYOUT
A style of layout in which elements are placed on the page in easy-to-move, rectangular ‘modules.’

NEGATIVE
Developed film; an image where dark areas of the actual scene appear light and light areas appear dark.

NEGATIVE CARRIER
The part of the enlarger which holds the negative in place during the enlarging procedure.

NEGATIVE SHEET
Several negatives contained in a carrier, usually made of transparent plastic, designed to assist in making contact sheets and filing.

NEWS
Information delivered about an event shortly after the event has occurred.

NIEPCE, NICEPHORE
Father of photography; took the first picture in 1826.

NORMAL LENS
A lens that records an image with approximately the same angle of view as the human eye; a 50mm lens is considered ‘normal’ for most 35mm camera.

OPINION
A statement which cannot be proven. Must be attributed when published as part of a story other than an editorial.

ORIGINALITY
Work that is new and which has not been seen in its present form before.

ORTHCHROMATIC FILM
Film that is sensitive to all visible colors of light and renders them tones similar to those visible with the human eye. See also orthochromatic film

PANNING
A photographic technique where the camera is moved at the same speed and direction as the subject allowing the subject to remain sharp but blurring the rest of the picture.

PARALLAX
The difference between what is seen in the viewfinder and what is recorded on the film; a common problem with rangefinder or twin lens reflex cameras.

PARTLY CLOUDY
A type of lighting cause when the a significant portion of light is blocked by clouds

PATTERN
A type of photographic composition in which the elements follow a predictable organization.

PC CORD
An electrical, wired connection between a flash and camera that allows the flash to be fired at the appropriate time after the shutter release is pressed.

PHOTO ASSIGNMENT CALENDAR
A calendar used to help photographers and editors keep track of deadlines and events which need to be photographed.

PHOTO ASSIGNMENT FORM
A form used to help photographers and editors keep track of events for which they are responsible for photographing.

PHOTO CREDIT
Part of the photo caption which states the name of the photographer or the organization responsible for the photograph.

PHOTOGRAM
A print made without a negative by positioning objects between a light source and the photographic paper.

PHOTOGRAPHY GUIDE
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PHOTOJOURNALISM
A genre of photography which includes photographing people involved in news events.

PICTURE
One-sixth of an inch. A printers’ measurement used primarily for column widths.

PIXEL
The smallest unit of an electronic image – literally a picture element.

PIXELS PER INCH
The number of pixels in an inch of a digital image; LPI * 2 = PPI.

PLASTIC
The part of some photographic film or paper to which the gelatin adheres, a lightweight component of many photographic devices.

POINT
One seventy-second of an inch. A printers’ measurement used primarily for measuring type and leading.

POLARIZING FILTER
A type of filter used when taking pictures to block out the reflections off non-metallic surfaces. Also useful for blocking reflections off water in the atmosphere, darkening blue skies.

POLYCONTRAST FILTER
A type of filter used in enlarging that, together with polycontrast paper, allows the user to alter the contrast of the image without having to use a different type of emulsion. Also known as multigrade filters.

POSED SHOT
A photograph that is set up by the photographer. See also candid.

PRINT
A reproduction of an image made with tones corresponding to those in the actual image. Also termed a ‘positive.’ See also ‘negative.’

PRINT DRYER
An electrical device used to dry prints using warm, forced air.

PRINT TONGS
Devices used in the printing process which permit a person to move prints from one tray to the next without having to get chemicals on the skin.

PROPORTION WHEEL
A device used to determine the percentage of enlargement or reduction that will be required when a photograph is going to be printed.

PUSHED PROCESSING
A technique used when developing film to increase the actual effective speed of the film by over-developing it. Usually used for pictures shot in extremely low light situations without artificial lighting. Increases contrast and grain.

QUOTATION
A statement made by another person included in a published story. A direct quotation is exactly what a person said and appears inside quotation marks. An indirect quotation is a paraphrase of what a person said and does not appear inside quotation marks.

RANGEFINDER
A type of camera which contains a viewfinder separate from the lens.

REDUCE
The opposite of enlarge; reproducing a picture at a size smaller than the original.

REEL
A device used in film developing to allow chemicals to reach all areas of the film evenly; made of stainless steel or plastic.

REFLECTED
Reflected light that bounces off a subject.

REPEITION OF SHAPES
A technique which uses repetition of elements in a photo to grab the reader’s attention.

RETICULATION
Cracks in the emulsion caused by temperature variations during processing.

RGB
A color mode (red, green blue) for photos destined for output on a television or computer monitor.

RINSE
A procedure in the development of paper or film designed to remove one chemical before immersion in another or before drying.

RULE OF THIRDS
A technique used to determine the placement of the subject. When the viewfinder is divided into thirds both horizontally and vertically, the subject goes at the intersection of any two lines.

S-CURVES
A technique which uses elements in a photo shaped in curves to grab the reader’s attention.

SAFE LIGHT
A device which emits light of a wavelength to which photographic materials are not sensitive, often amber.

SANS SERIF
Type with no extensions at the letters which is easier to read at large sizes.

SCRATCH-RESISTANT COATING
The portion of film designed to make it less sensitive to scratches.

SELECTIVE FOCUS
A technique which renders only certain elements in a photograph to appear in focus by using wide f/stops which give low depth of field.

SELF TIMER
A part of a camera a delays the opening of the shutter after the shutter release has been pressed.

SERIF
An extension on the end of certain letters which make the type easier to read.

SHADOW
The darkest portion of an image, often the shadows in the background.

SHUTTER
The part of the camera that opens, allowing light coming through the lens to reach the film.

SHUTTER RELEASE
The portion of the camera that when pressed opens the shutter and exposes the film to light.

SHUTTER SPEED
A measurement of how long the shutter will remain open allowing the light-sensitive emulsion to be exposed to light. Measured in fraction of a second.

SHUTTER SPEED DIAL
The portion of the camera which allows the photographer to set the appropriate shutter speed.

SIDE LIGHTING
Lighting that illuminates one side of a subject more than another.

SILVER HALIDE
The light-sensitive part of film or paper. Chemically, a silver halide is a compound of silver and either fluorine, chlorine, bromine or iodine.

SINGLE-LENS REFLEX (SLR)
A type of camera which allows a photographer to see the subject through the same lens as light will pass when the film is exposed. See also twin lens reflex camera and rangefinder.

STEICHEN, EDWARD
Together with Alfred Stieglitz, founded the Photo-Secessionists in America in 1902. During his lifetime, he helped America discover, through Stieglitz’s galleries, such artists and photographers as Picasso, Monet, and Rodin. During WWI and WWII, he was a photographer for the U.S. Armed Forces. During WWII, he was director of photography in the Pacific theatre. He later became the director of photography at the Museum of Modern Art in New York City where he organized one of its most famous exhibitions: ‘The Family of Man.’

STEIGLITZ, ALFRED
One of the most influential photographers who ever lived. He brought the impressionistic style of photography from Europe to America through the organization of the Photo-Secessionists. He would later lead the way to straight photography by recognizing and promoting the work of such photographers as Paul Strand, Edward Weston and Ansel Adams. He opened the first photography gallery in New York City and helped to establish the first department of photography at an American museum. He was married to the artist, Georgia O’Keeffe.

STOP BATH
An acidic solution used to stop the action of the developer.

STOPPED ACTION
Moving subjects photographed with fast shutter speeds so they appear stopped.

STOPPING POWER
The ability of a photograph to catch the eye of a viewer.

STRAND, PAUL
An American photographer who began working in the early 1900’s on a style of photography that became known as ‘straight’ photography. His early photographers of candid street scenes would influence photographers for the next 30 years.

SUBORDINATE ELEMENTS
Elements which a viewer sees after viewing the dominant element.

TALBOT, WILLIAM HENRY FOX
Credited with creating the negative/positive process.

TANK
A light-tight device made of metal or plastic into which film or paper is placed for development.

TECHNICAL QUALITY
Refers to the qualities in a photo which result from things other than composition, including exposure and proper development.

TELEPHOTO
A lens with a narrow angle of view allowing distant objects to fill the frame.

TEST STRIP
A small piece of photographic paper exposed to light for various intervals to determine the proper exposure time.

TEXT
A story. Also called body copy. Usually set in 9-12 point type.
A type of lens with multiple focal lengths as opposed to a fixed lens.

A mixture of a chemical in water that is ready to use.

A device used to aid a photograph in getting accurate exposures or development times.

An exposure which allows less than the required amount of light to reach the emulsion; causes a loss of detail in the shadow areas.

A type of camera which has two lenses, one for viewing the subject in preparation for taking the picture and one through light passes before reaching the film.

Development shorter than the recommended time at a given temperature and agitation rate; commonly caused by cold developer or exhausted chemicals.

An exposure of unusually long duration often timed by the photographer rather than the camera.

A metal found in common light bulbs that when burned gives off an orange color.

Containers used in the darkroom used to contain chemicals and into which prints (or film) are placed so they can be in full contact with the chemical.

The portion of a story which helps the reader move from one point to the next. Transitions serve three purposes: to help the story flow, to add information, and to explain other items in the story.

The portion of a page with nothing on it used to draw a viewer into the other elements on the page. All white space should be planned.

A type of lens with a wide angle of view allowing more nearby objects to fill the frame.

A type of lens with multiple focal lengths as opposed to a fixed lens.

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An exposure which allows less than the required amount of light to reach the emulsion; causes a loss of detail in the shadow areas.

Began as a successful portrait photographer in Hollywood, he destroyed all of his negatives and moved to Mexico for four years to rethink his photographic style. Together with Ansel Adams, Imogene Cunningham and others, he helped found Group f/64. The first photographer to receive a Guggenheim Fellowship, he is best known for his landscapes, nudes and still lifes of peppers. He photographed for complete sharpness of details, printing his 8x10 negatives, mounting and detail in his images, insisting on extreme depth of field, contact printing his 8x10 negatives, mounting on white board and not retouching or manipulating the image at all.

The portion of a page with nothing on it used to draw a viewer into the other elements on the page. All white space should be planned.

A mixture of a chemical in water that is ready to be used.
CONTRIBUTORS
Without these people, this guide would not have been possible. A special thanks goes to Lynda Farabee who was always willing to contribute in any way possible.
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NOTES
Photojournalism is one of the most fun and challenging courses a teacher can ever teach. There is no greater reward than teaching students to see the world around them. This Photojournalism Curriculum Guide has served, in other forms, as the basis for introductory photojournalism courses at Wimberley Secondary School (Wimberley, Texas), Irving High School (Irving, Texas) and Kansas State University (Manhattan, Kan.).

THANKS
Several students throughout the years (not to mention the teachers) have tested this material. Without them, things might have worked out differently.
- Jonathan Allen
- Chris Barnes
- Jonathan Dwyer
- Gabe Harcrow
- Nathan Hunsinger
- Sam Mercer
- Ian Shott
- Butch Watts

COLOPHON
The essential elements and vocabulary information was entered into FileMaker Pro on a Mac II where it could be sorted in many ways. The data was then exported and merged into a formatted Microsoft Word file and placed into PageMaker where the final publication was formatted. A Power Macintosh G3 and Hewlett Packard LaserJet 5000N were also used in production.

This publication was designed on a seven-column page using the Futura and Berkeley font families set in a variety of weights and styles.

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