

LAB MANUAL for PHOTO & IMAGING MAJORS

Tisch School of the Arts Department of Photography and Imaging

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I. RULES AND REGULATIONS

A. LAB HOURS

Monday	10AM - Midnight	White Lights @ 11 PM
Tuesday	"	"
Wednesday	"	"
Thursday	"	"
Friday	10 AM - 10 PM	White Lights @ 9 PM
Saturday	Noon - 7 PM	White Lights @ 6 PM

Students habitually unable to clean up and remove themselves from the floor by closing time will have their lab privileges suspended.

B. WHO CAN USE OUR FACILITY

1. Current photo majors regardless of what courses they're taking.
2. Non-majors currently enrolled in photo courses: If you are enrolling in any course beyond the introductory level, you are required to consult with your teacher to determine which equipment you plan to use and to arrange for technical instruction. Merely enrolling in a course does not automatically qualify you to use the same range of equipment that is available to a photo major. Arrange tech-outs through Karl or Mike. Failure to do so may result in the revocation of your facilities or equipment privileges.
3. Non-major TAs.

C. SMOKING / DRINKING / EATING / MUSIC

Cigarette smoking is **not permitted** in the building.
Insurance and school policies forbid alcoholic beverages in all areas of the dept.
Food and drink are not allowed in the darkrooms, digital labs, library, or print finishing areas.
All music players must be used with headphones in the facilities.

D. CHECK-OUT

Students may check-out a range of photo equipment, but we encourage you to acquire your own equipment during your years here so that you will be prepared to work after graduation.

On Premises:

Students signing out darkroom or other equipment for use in the dept. must present their ID card to a TA in the Cage. Cards are returned when the equipment is returned.

Off Premises:

Students may borrow certain equipment on an overnight basis. Note: Certain equipment is reserved for advanced students. Anyone requesting equipment must be instructed in its proper use. Consult Karl, Mike, or your teacher for particulars.

***** OFF PREMISES CHECKOUT IS FOR 1 DAY ONLY. *****

***** EQUIPMENT MUST BE RETURNED BY 8PM, MONDAY - FRIDAY, OR 4PM ON SATURDAY *****

***** YOU ARE 100% FINANCIALLY RESPONSIBLE FOR LOSS OF OR DAMAGE TO EQUIPMENT SIGNED OUT TO YOU. *****

E. EQUIPMENT

Equipment available to all photo majors for overnight check-out:

- Polaroid SX-70 cameras
- Nikon FM2 35mm cameras and lenses (20mm-135mm), motor drives
- Digital point and shoot cameras
- Canon digital rebels & 20D's
- Vivitar flash units
- Mamiya 2 1/4" TLR cameras
- Pentax 6x7 cameras
- Minolta flash meters
- Tripods
- Tungsten / quartz lights

Equipment available for overnight check-out to photo majors who have successfully completed Photo + Imaging II, tech-out required:

- Sekonic spot / flash meters
- Nikon 16mm fisheye, 180mm, 200mm, 300mm, and 500mm lenses
- Fujica 6x9 with 65mm or 90mm lens
- Canon 40D's
- Mamiya RZ 6x7 with lenses
- Mamiya M7II with lenses
- Mamiya 645AFD with lenses
- Polaroid 600SE Camera with 2 lenses

Special Equipment

1. **The 2 Hasselblad systems** cannot be taken out of the department. They are available to Lighting Class students. Juniors and seniors needing these cameras for their projects may see Karl for a tech-out to gain access to this equipment.

2. **The Profoto Pro 6 and Acute strobe** equipment can be used only by students currently enrolled in, or who have successfully completed the Lighting class, and any juniors & seniors working on a project that specifically warrants their use and who have been teched-out by Karl.

3. **Large Format Cameras, Lenses, and Accessories** are available to students currently enrolled in, or who have successfully taken the Large Format Class, and any juniors & seniors working on a project that specifically warrants their use and who have been teched-out by Karl. That equipment includes:

- 4x5 Wista and Toyo Field Cameras
- 4x5 Calumet, Toyo, and Sinar Monorail Cameras
- Large format lenses, 90mm - 240mm
- Pentax Spot Meters
- 65mm Rodenstock 4x5 lens with graduated ND filter
- Two 8x10 Deerdorf Field Camera kits
- 4x5 Horseman kit (doesn't leave the dept.)
- 8x10 Horseman kit (doesn't leave the dept.)

4. **Digital Video Cameras.** DV cameras are available to students currently enrolled in, or who have successfully taken a video production course. DV camera kits each include a carrying case, an AC power source/charger 1 battery and a firewire cable, as well as the camera. Wide-angle lenses are also available upon request. The department currently has the following DV cameras:

- Sony DCR-TRV900
- Sony DCR-TRV950
- Sony DSR-PD150
- Panasonic AG-EZ1

5. **Equipment on loan from Mamiya.** Again this year, Mamiya will be loaning us a quantity of equipment. Attendance at the Mamiya Day demonstration and tech-out is mandatory before using any of the loaned equipment. This equipment will be available to photo majors who have successfully completed photo + imaging I.

6. **Leaf Digital Back.** We have a Leaf Aptus 65 digital back that fits on our Mamiya 645 AFD. It is available to juniors and seniors with permission, and via tech out with Mike.

F. OFF PREMISES RESERVATION POLICY

Students may reserve certain kinds of equipment up to two weeks ahead of time. Stop at the Cage and ask a TA for the reservation book. Find the page specific to the equipment you're interested in, and write in your name on the dates you wish to pick up and return that piece of equipment. Remember we have a 24 hour check out policy. Items checked out on Saturday are returned the following Monday. Remember that equipment can be returned as late as 8pm on weekdays (4pm on Saturdays) so

reserving equipment only guarantees that you'll be able to pick it up by 8 pm on the day of the reservation. Also, in fairness to all students, you may reserve a particular camera model only twice a month.

G. LATE EQUIPMENT RETURN

Students who keep equipment beyond the checkout deadline and have not phoned the Cage to explain their situation, (illness or other emergencies) will not be allowed to sign any equipment out for **one week for every day late**.

Repeat offenders will be ineligible to take equipment out of the department. If equipment is not returned at the end of a semester a student's grades may be withheld, and their account with the Bursars Office will be charged for the missing/damaged items. Accidents do happen, and when they do, we will bill you.

H. PHONE USE

There is a telephone in the print finishing area for student use—local calls only. The telephone in the digital darkroom is not for student use. Incoming calls are not allowed in the digital darkroom.

I. LOCKERS / STORAGE

Lockers are available to all photo majors. See Karl or Mike for locks. The extra large lockers at the end of the corridor outside studio 824 are reserved for seniors. Please do not store items on top of your lockers. Also, if you have paper that won't fit in your locker, you may store it in the print finishing area or the color printing area on the shelves beneath the counters. Large sheets of mat board may be temporarily stored in the print finishing area at the owner's risk.

The large flat files outside room 313 are available to juniors and seniors —the keys are in the cage.

Students are not permitted to store items in the cage.

II. FACILITIES

A. ON PREMISES RESERVATION POLICY

The reservation sign up sheets are located in the Cage, and space is reservable up to two weeks in advance. You may reserve up to **6 hours** per week per production class. Additional time is usually available during most of the semester on a drop in basis, with the exception of the last few weeks before finals when the labs are very busy. Reservations are not accepted over the phone, but you can call the cage to see if any enlargers are free for immediate use. The 6 hours can be split between different darkrooms, but cannot exceed 6 hours total per week, per production class. Finally, reservations must be made a **MINIMUM** of 3 hours in advance of your starting time.

ANYONE WHO RESERVES MORE THAN THEIR SHARE OF HOURS WILL HAVE ALL THEIR RESERVATIONS FOR THE WEEK ERASED.

Reservation No-Shows, and the 15 Minute Rule:

Students who fail to appear within 15 minutes of their reservation forfeit their time, and the reserved station becomes available for use by any appropriate level student. You should call the cage (212-998-1925) to inform the TA's if you are going to be late, or if you are not going to show up for a reservation. Students who repeatedly don't show up for reservations will suffer dire consequences at the hands of the inconvenienced.

B. FILM PROCESSING

Rooms 803 & 806 are available for film loading and processing on a first come, first served basis. Please bring a towel. You are responsible for cleaning up your work area when finished—there is a mop outside BD if things get out of hand. Processing directions are posted on the walls above the chemical vats.

Various sized plastic and metal graduates, tanks and reels, as well as stir paddles, thermometers, and scissors are available for checkout from the Cage. Although metal reels can be signed out from the cage, it is strongly suggested that you purchase your own, as communally used metal reels are sometimes more difficult to use.

Note: When using the film loading rooms, be sure the rubber mat is placed along the bottom edge of the door to prevent light leaks. If light leaks persist, be sure to notify the Cage.

Chemicals:

Fresh stop bath, fix and hypo-clear are kept in jugs in the sink in each room and allow for three people to process film simultaneously. **DO NOT POUR THESE THREE CHEMICALS DOWN THE DRAIN**—they should be returned to the jugs after use. If you suspect that the chemicals are exhausted, ask a TA, and if it is needed, they will mix up new chemistry for you.

D-76 developer is available from the labeled steel vat and can be used straight or diluted 1:1 with water. Discard after one use.

Dry all borrowed equipment thoroughly before returning it to the Cage.

If you should observe any problems, i.e. light leaks, chemical spills, or malfunctioning equipment, please notify the TAs immediately.

Sheet Film Processing should be done in room 805 or 822. Be sure to check with the cage that the proper chemistry is prepared for use in these rooms.

C. DARKROOMS

BEGINNING B&W DARKROOM (“BD”)

This lab has 8 enlargers available for printing 35mm negatives onto RC paper and fiber paper. Processing times for both RC and fiber paper are posted above the trays.

Two dryers are available outside the BD area for drying RC prints; squeegeeing prints before inserting them into the dryer is not recommended. Always use a tray to carry freshly washed prints out to the dryers, and when inspecting a wet print in the light.

Advise TAs when the chemistry appears exhausted (i.e., developer turns deep brown, stop bath turns purple, or the fix becomes cloudy).

ADVANCED B&W DARKROOM ("AD")

7 of the 8 enlargers (not AD 4) can handle 35mm, medium format and 4x5 negatives. With all 8 of the enlargers, be sure to install a mounted lens **before** turning on the power. (If not, the darkroom is flooded with light, and that's contradictory to the whole darkroom experience, isn't it?)

AD 1, 2, 3, and 5 are Omega D-5 condenser type enlargers, while **AD 6, 7, and 8** are Zone VI Variable Contrast Cold Light enlargers, with Metrolux Compensating timers attached. **AD 4** is an 8x10 enlarger, requiring a special techout. Processing times for both RC and fiber paper are posted above the trays.

WHEN USING AD OR BD, PLEASE ADVISE TAS IF:

1. Any of the chemistry becomes exhausted.
2. Any of the timers aren't operating correctly.
3. Any of the enlargers are out of alignment, or seem to be malfunctioning.
4. Under-educated students are causing unintentional havoc.
5. Anyone is causing intentional havoc.

Toning is suggested as a method of insuring the permanence of your image. This is done in the toning sink outside the AD area.

COLOR DARKROOMS

RM#	Max Print Size	Enlarger
821A	up to 20x24	Saunders LPL Subtractive Head
821B	up to 30x40	Saunders LPL Subtractive Head
821 Fish	up to 30x40	Saunders LPL Subtractive Head
833	up to 20x24	Saunders LPL Subtractive Head
	up to 20x24	Beseler Subtractive Head
834	up to 30x40	Saunders LPL Subtractive Head
835	up to 20x24	Saunders LPL Subtractive Head
836	up to 20x24	Saunders LPL Subtractive Head
	up to 30x40	Fotar 8x10 Enlarger (B&W + Color)

To use any of the color darkrooms, give your ID to the Cage and a TA will give you a lens, lens board, negative carrier, and key to the room. Grain focusers, burning boards and easels are kept in the darkrooms. When you're finished, turn the power off on the enlarger, timer, and safelight and return all the equipment you borrowed from the cage.

Using 835 and 836 for non-color applications:

Students printing color will have priority in these rooms, unless prior arrangements have been made. 835 and 836 can be used for special small scale B&W printing techniques (the use of different chemistry, liquid light, sabbatier, etc.) They cannot be reserved for this purpose without permission.

If you use these rooms for any wet processes, you must thoroughly clean them. Wash all the trays inside and back, and stack them vertically in the sink.

D. DIGITAL DARKROOMS (ROOMS 819 & 823)

Hand Scan. To enter 819 or 823, you must have an active hand-scan ID. The hand scanner will allow you access only during hours that the department is open. To get your hand scanned, see Edgar or Karl. It is a painless but necessary procedure that helps ensure the security of our facility. Your scan and code number will be active as long as you are a student here.

Hardware. All stations are either Macintosh G5 or Mac Pro Intel Core Duo computers, with calibrated Eizo monitors, and they all have DVD/CD burners for storing your media (not for pirating music or movies.) Each machine includes a Mars partition of several gigabytes. These workspaces are *not* for permanent file storage they are for short-term storage only. Any files left on the workspace for more than one week will be deleted. They might be deleted before then too. Always back up. We highly recommend the use of external hard drives as a way of storing, transporting, and archiving your digital media. Feel free to see us about our current recommendations.

823 contains several high-quality input/output peripherals distributed among the various stations. These include:

Scanners

- 2 Epson 4870 scanners for flat art and film
- 2 Nikon Super Cool Scan 8000 & 9000 film scanners – for medium format and 35mm transparencies and negatives. Tech-out required.

Dedicated Ink-Jet Printers

- 1 Epson Stylus Photo 2200 (7-color, ultrachrome printing up to 13"x19")
- 2 Epson Stylus Photo 2400 (8-color, ultrachrome II printing up to 13"x19")
- 2 Epson Stylus Photo 4000 (7-color, ultrachrome printing up to 17"x22")
- 3 Epson Stylus Photo 3800 (8-color, ultrachrome printing up to 17"x22")

Network Printers

HP 4200 Duplex B&W laser printer (8.5"x11"), nicknamed "Edwina".

819 contains some additional equipment, distributed among the various stations. These include:

Scanners

- 1 Epson 10000XL scanner for flat art and film
- 1 Epson 1640XL scanner for flat art
- 1 Nikon Super Cool Scan 8000 & 9000 film scanners – for medium format and 35mm transparencies and negatives. Tech-out required.
- 1 Imacon 848 film scanner for students in P&I 3 and above, tech out required
- 1 Imacon 949 film scanner for students in P&I 3 and above, tech out required

Dedicated Ink-Jet Printers

- 1 Epson Stylus Photo 4000 (7-color, ultrachrome printing up to 17"x22")
- 2 Epson Stylus Photo 4800 (8-color, ultrachrome printing up to 17"x22")
- 2 Epson Stylus Photo 4880 (8-color, ultrachrome printing up to 17"x22")

Software. All the stations have a host of imaging, design and web building software. For a complete list go to In-House Resources on the departmental website.

You may not install additional software. If there is a software package Applications like Word and Instant Messenger are inappropriate for our facility, since these workstations are intended specifically for imaging, editing and design applications. There are general-purpose computer labs available to all students at 35 West 4th Street on the 2nd floor.

Email. Computers in the Digital Darkrooms should *not* be used for checking email. There are 2 email computers in the department. One is stationed in the library, and is available during library hours. The other computer is installed in the print finishing area and is available any time the facility is open. Both machines have web access and MS Office Word, if you need to print out a document.

Food. *Food and beverages are prohibited in the digital darkrooms!* This rule is strictly enforced! One spilled soda could cost the department thousands of dollars in computer repair. Expect that if you're caught, you'll lose access to the labs for a week.

See In-House Resources on the departmental website for a further examination of digital lab etiquette.

E. STUDIOS

824 Only students enrolled in the Lighting classes and seniors (with permission) can reserve time in 824.

313 (in 719 B'way) This room functions as a multi-use space (classroom, project room, and studio space) and is therefore not always available - see the signup sheets about availability. 313 now has the following equipment stored in it at all times:

- 2 acute 2400 watt/second power packs
- 5 heads, w/ multiple reflectors and grids
- 8 light stands
- 1 heavy duty gitzo tripod

Also see information about after-hours access on page 10.

When you're ready to use either of the studios, go to the Cage and sign out what equipment you need and get a room key. Check the condition of the room immediately and note any problems. It should be clean and neat, with everything put away, stored, and rolled up.

When you're finished using either studio:

1. Roll up seamless backdrop paper and store it away.
2. Clean up all debris and close any open windows.
3. Carefully dismantle equipment and return it to the cage, or where ever it belongs.

F. NON-SILVER (Room 822)

A work area has been set aside which provides students with a special darkroom and sink for exposing and processing non-silver images. Students enrolled in Historical Processes can reserve time in this room at the Cage. This room can also be used for sheet film processing. Due to the room's size, and the nature of some of the chemistry that's used, it is imperative that everyone cleans up after themselves.

G. PRINT FINISHING (Room 820)

This area is a center of student activity. The dry mount presses, Mat cutter, drying screens and toning sink are all located here. Towards the end of each semester this area is incredibly busy. To keep the situation under control, it's helpful if students are familiar with the following basic rules of operation.

1. **Drying screens:** Most of the drying screens are for conventionally processed silver prints and some of the racks are reserved for non-silver work; please don't confuse the two. Only silver prints that are thoroughly washed can be put on the screens; it only takes one poorly washed print to contaminate a screen. To use, simply squeegee the back of the print on the squeegee board and carefully lay the print, face down, on the screen. Be considerate of others and remove your work when it's dry. Any prints that remain on the screens longer than two days are put in the scrap pile.
2. **Toning sink:** Beneath the sink are many different sized trays and jugs for students to use. Some of the chemistry used for toning is classified as hazardous waste when exhausted – make sure you handle and dispose of the chemistry appropriately. Ask Karl before undertaking any toning. Clean and stack trays thoroughly after use.
3. **Dry mount presses:** Turn on ahead of time and allow them to warm up. Follow specific directions as packaged with the dry mount tissue. Note that if you exceed the recommended temperature with RC paper, it will not stick. To flatten a print, 30-60 seconds at 180-210 F, followed by cooling under one of the steel plates should do the trick. If the paper in the press is dirty or missing, notify a TA. Turn off the press when you're finished.
4. **Mat cutter:** Check to be sure the blade is mounted correctly. Used blades are to be disposed of properly - (i.e. tape over the cutting edge.) Please use caution at all times; the Cage has a very limited supply of Band-Aids. Please do not use the mat cutter unless you have had a mat cutting demo, or you have cut mats before on a similar device.

H. COPYSTAND (ROOM 811)

Once you are teched out, this room can be reserved for making slides of photographs and flat artwork. A key to the room and a Nikon FM-2 camera with a 60mm micro lens is available in the cage. For color slides, we recommend Kodak Ektachrome 64T or Fujichrome 64T—the color balance is excellent and usually requires no filtration. Using the same lab for processing will help maintain consistent results. Remember to turn off the overhead lights when using color film.

The copystand room is very small, and consequently nothing can be stored there. This room must be kept free of clutter if it is to function. Any unauthorized "stuff" left there will be thrown away or absorbed into the ether.

I. LIBRARY

Our collection includes photography monographs, catalogs, general and critical texts, literature, journals and periodicals, technical and reference materials.

Library hours are Monday through Friday from 9 AM to 5 PM when Derrick is at his desk; therefore it may be closed during the lunch hour.

The library is reserved for use by photo majors and non-majors enrolled in classes in the department. Books may only be viewed in the library, and may not be checked out.

Locating Books: Books can be located by using the two listings that arrange books alphabetically by title and by author. The type of book will be indicated in the listing. These listing, however, are slightly out-of-date, so if you do not see what you need check with Derrick at the front desk. The library database will soon be available on the library computer, but until that time please be patient and ask for assistance. Once you have determined the type of book, go to the bookcases; all the categories are alphabetized by author, except for the Monograph section, which is organized by artist. To view books from the reserve cabinet, your ID card must be left at the front desk. If you have any problems or questions check with Derrick at the front desk.

Special note: Our library is maintained as an open stack for the enrichment of students in the Photography and Imaging department. It is a luxury not often found in other departments so please respect the honor code in the library and return books on time and in good condition. Absolutely no food or beverages are allowed in the library, even if class is held there. Keep your feet off the furniture and bookshelves and enjoy the books!

Copy Machine: Photocopies cost \$.10/ea. Please pay at the front desk. The machine is for class related copying only.

J. CLASSROOMS

Students wishing to use these rooms for work on projects may do so when the course schedule permits. Please see the schedule in the cage. The rooms may not be used just prior to classes when faculty and staff often have to set up materials or slides for lectures.

Access to 3rd floor classrooms in 719 B'way:

During the hours of 9 AM to 5 PM Monday through Friday, our facilities on the 3rd floor of 719 Broadway can be accessed through the elevators in Student Affairs. After 5 PM, Monday through Friday, it is necessary to exit the building to move between our two floors. On Saturdays and weeknights after 9 PM, it will be necessary to use a card swipe device installed outside the lobby of 715 B'way to gain entry. All photo majors will have their ID's registered to use the card swipe device.