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**School of Information, The University of Texas at Austin
INF 393C.10 Treatment techniques for flat paper**

Course meeting times: Tuesday, 9:00 - 11:45, UTA 1.506B (Paper Lab)

Course Description

Basic procedures and techniques for the care and handling of materials found in library and archival collections; setting realistic goals and priorities for collection care; basic concepts of preventive conservation; understanding the nature of materials; practical experimentation. There are no prerequisites. Lab work outside normally scheduled class hours is required.

Lecturer: Karen L. Pavelka

Email: pavelka@utexas.edu

Lab: UTA 1.506B phone: 512-471-8269 (Much more likely to be here.)

Office: UTA 5.422 phone: 512-471-8286 (Rarely in office.)

Lab hours: Posted on lab door and **may change over the course of the semester.**

Objectives:

Techniques that can do a substantial amount of good for a collection, but can be performed with minimal equipment, space, materials and skill will be covered. Additionally, students will learn how to teach techniques to others and how to evaluate and improve technicians' performance. Students will learn to:

- Perform basic conservation treatments including dry cleaning; humidification and flattening; and mending
- Select appropriate housings
- Design and build enclosures
- Assess the condition of materials and select appropriate repair techniques
- Allocate collection care resources
- Follow basic laboratory protocol
- Design and evaluate simple experiments

Tools and materials

Students will be provided with a tool kit for use during the semester. The complete tool kit must be returned in good condition at the end of the semester and any missing or damaged tools must be replaced by the student. Treatments will be performed on a variety of collection and non-collection materials, most of which will be provided by the instructor, but students are welcome to bring in materials from their personal collections to augment class assignments. Students may be responsible to supply some materials, such as small books for enclosures.

Attendance

Attendance is required for all class sessions. If a student needs to miss a class he/she will need to:

- Obtain permission at least 24 hours in advance. If the absence is for illness 24 hours notice may not be necessary, but I may request a doctor's note.
- Collect class notes from other class members and write a summary of the content, similarities and differences between the note takers.
- Submit a written summary of all reading assignments. This should be written as a book review and should conform to the Journal of the American Institute for Conservation guidelines for book reviews.
- Submit a written statement of why the class was missed and how the student intends to make up the course work.
- Complete all assignments on time.
- Students must get to class on time. One point will be deducted from the final course grade if a student is late, with an additional point taken at 10 minute increments.

Lab use

Students will have key card access to 1.506 (Ante room) at all times UTA is open. Please use this room respectfully. Reading materials are not to be taken from the room without the explicit permission of the instructor. (That's me, Karen Pavelka, and no one else.) However, please do use the room. It is a nice, quiet place to read, study or hold small meetings. Please log in whenever you are using the room.

Students are welcome to use the paper lab 1.506B during lab hours and office hours. These hours will be posted on the doors to the ante room by the end of the first week of class. The lab has equipment, microscopes and tools. Students may use any of these but only with the explicit permission of and training from the instructor. (Again, that's me, Karen Pavelka, and no one else.) Labs can pose physical and chemical dangers and some equipment is easily damaged. All rules must be respected.

Lab rules

- No food or drink is allowed in the lab. Ever. This is for your own personal safety.
- Backpacks, jackets, etc. are to be stored in the cubbies in the ante room.
- Do not put your hands in your mouth when working in a lab. Ever.
- Do not touch your face, especially eyes.
- Close toed shoes must be worn at all times in the labs.
- No high heels.
- Shorts are not appropriate lab attire.
- The instructor reserves the right to refuse anyone access to the lab who is not properly attired. If this causes the student to miss a class it will count against the final course grade.
- Lab coats are available if needed.
- Small children are not allowed in labs. Older, well-behaved, supervised children are allowed in for tours and such.
- Personal protective equipment must be worn as appropriate.
- Eye protection must be worn when working with power tools. Failure to adhere to this rule will result in an F for the course and the student being barred from the labs.
- Loose clothing must not be worn when working with power tools or blades.
- Long hair must be tied back when working with power tools or blades.
- Do not use any equipment unless you have been properly trained and have been given permission.
- The first aid kit is to the right of the utility sink in the paper lab.
- Eyewash stations are mounted on the utility sinks in the paper and book labs.
- Chemical showers are located near the utility sinks in both labs.
- Do not open any cabinet or drawer unless you have been given permission.
- Do not borrow tools without permission.
- Keep all surfaces clean and free of extraneous materials; this includes chairs.
- All tools must be cleaned and all materials put away before leaving the lab area.
- The lab should be cleaner when you leave it than it was when you arrived. It makes no difference that you did not make the mess, you are still responsible for keeping the labs clean.
- Anyone not adhering to lab rules will be directed to leave for that class session. Five points will be deducted from a student's grade for each occurrence.

Assignment due dates

OH201 EHS Course	Immediate
Teflon and micro-spatula	February 2
Conservation treatment investigation	February 2

Simple enclosure construction	February 2
Enclosure copy	February 9
Varied enclosure designs	February 23
Experiment design	February 16
Experiment implementation	April 26
Treatment report	March 7
Treatment complete	Various
Summary of treatment skills	May 5
Attendance and participation	On-going
Lab, tool and equipment maintenance	On-going

Grading

OH201 EHS Course	0 points; required for working in lab
Teflon folder	5 points
Micro-spatula	5 points
Conservation treatment investigation	10 points
Simple enclosure construction	5 points
Enclosure copy	5 points
Varied enclosure designs	20 points
Experiment design and implementation	10 points
Treatment report	10 points
Quality of treatment	10 points
Summary of treatment skills	5 points
Attendance and participation*	10 points
*Participation includes evidence of having done class readings.	
Lab, tool and equipment maintenance	5 points

Course Policies

Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259.

<http://www.utexas.edu/diversity/ddce/ssd/>

Students are expected to adhere to the University Honor Code. <http://www.utexas.edu/about-ut/mission-core-purpose-honor-code>

By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

Students are expected to attend all classes and arrive on time. I may request a doctor's excuse if a student is ill. Assignments must be submitted by midnight on the day they are due unless an extension has been approved by the instructor before the due date. Grades will be reduced by 10% for each day the assignment is late.

Course schedule

January 19 Week 1 Introduction; Lab safety; Tool making

Readings:

Environmental Health and Safety Office. (2013). Course descriptions. Retrieved January 18, 2016, from <http://www.utexas.edu/safety/ehs/train/courses.html>
Lee, L. (1995). *The complete guide to sharpening*. Newton, CT: Taunton.
Turner, J. (1992). *Brushes: A handbook for artists and artisans*. New York: Lyons and Burford.

Assignments:

Complete OH201, Course from Environmental Health and Safety Office. This is not a graded assignment but students will not be allowed access to the labs after the first class meeting until this is completed. You must give me a print out showing that you have taken and passed the test before you will be allowed to work in the labs.

Due: Before working in the lab either for lab hours or the next class meeting.

Shape and polish Teflon tool and micro spatula

Due: February 2

Investigate treatment options

Due: February 2

January 26 Week 2 Selecting materials Basic enclosure structure Unframing demonstration

Readings:

STASH (Storage Techniques for Art, Science & History Collections). Foundation of the American Institute for Conservation. Retrieved December 14, 2015. <http://stashc.com/> Browse the site and pay particular attention to the Solutions page. We will be discussing materials and structures in class and you will be expected to be familiar with basic concepts.

Assignments:

Complete simple enclosure

Due: February 2

February 2 Week 3 Storage and housings: Designs and materials

Readings:

Ellis, M. H. (1995). *The care of prints and drawings*. Walnut Creek, CA: Altamira Press. pp. 1-144. (Located in 1.506)

Harrison, G. (n.d.). Repair and enclosure treatments manual. Retrieved January 18, 2016, from <http://www.indiana.edu/~libpres/manual/mantoc.html>

National Park Service. (n.d.). Conserv O Grams. Retrieved Jan January 18, 2016, from http://www.nps.gov/museum/publications/consveogram/cons_toc.html

PACCIN. Retrieved January 9, 2015, from <http://www.paccin.org/content.php>

Assignment:

Copy an existing enclosure. Models will be given.
Due: February 9

February 9 Week 4
Evaluating risks; Protecting objects

Readings:

NARA. (nd). How to preserve family papers and photographs. Retrieved January 18, 2016 from <http://www.archives.gov/preservation/family-archives/>
Pavelka, K. (2013). Evaluation of a microclimate for a short term loan. Retrieved January 18, 2016, from <https://www.ischool.utexas.edu/~pavelka/buffercomparison.html> Read all sections.
Ritzenthaler, ML. (1990). Preservation of archival records: Holdings maintenance at the National Archives. Retrieved January 18, 2016 from <http://www.archives.gov/preservation/holdings-maintenance/table-of-contents.html> Read all chapters.

Assignment:

Enclosure variants
Due: February 23

Experimental design and implementation
Design due: February 16
Results report due: April 26

February 16 Week 5
Conservation treatment: Examination and documentation

Readings:

Appelbaum, B. (2007). *Conservation treatment methodology*. Oxford: Butterworth Heinemann.
(Located in 1.506)
Ash, N., Homolka, S., & Lussier, S. (2014). *Descriptive terminology for works of art on paper* (R. Wolcott, Ed.) (Monograph). Retrieved January 18, 2016, from http://www.philamuseum.org/doc_downloads/conservation/DescriptiveTerminologyforArtonPaper.pdf
Baker, W., Dube, L. (2010). *Identifying Standard Practices in Research Library Book Conservation*. LRTS 54 (1). Retrieved January 18, 2016, from <http://kuscholarworks.ku.edu/dspace/handle/1808/5818>
Chapter 6: Visual examination. (1995). *Paper Conservation Catalog*. Retrieved Retrieved January 18, 2016, from http://www.conservation-wiki.com/index.php?title=BP_Chapter_6_-_Visual_Examination
Frey, F., Heller, D., Kushel, D., Vitale, T., Warda, J., & Weaver, G. (2008). *AIC guide to digital photography and conservation documentation* (J. Warda, Ed.). Washington, DC: American Institute for Conservation of Historic and Artistic Works.
ICON. *Introduction to conservation reports: Treatment reports*. Retrieved January 18, 2016, from <http://www.conservationregister.com/PIcon-ConservationReports.asp>
Onie, R., ed. (2000). *The Winterthur guide to caring for your collection*. Winterthur: Winterthur Museum. (Located in 1.506)
NPS. *Museum Handbook*. Chapter 8. Retrieved January 18, 2016, from <http://www.nps.gov/museum/publications/mhi/chap8.pdf>

Assignment:

Treatment report and photodocumentation for architectural drawings.

NB: These drawings are collection materials. No carelessness will be tolerated. The materials are to be properly stored and handled at all times.

Due: March 7

February 23 Week 6
Conservation treatment: Dry cleaning

Readings:

- Chapter 12: Mold/fungi. (1995). *Paper Conservation Catalog*. Retrieved January 18, 2016, from http://www.conservation-wiki.com/wiki/Paper_Conservation_Catalog_-_Mold
- Chapter 14: Surface cleaning. (1992). *Paper Conservation Catalog*. Retrieved January 18, 2016, from http://www.conservation-wiki.com/wiki/BP_Chapter_14_-_Surface_Cleaning
- Dartmouth College Library (2010) *A simple book repair manual*. Retrieved January 18, 2016, from <http://www.dartmouth.edu/~library/preservation/repair/index.html>
- Maudie. (2012, February 3). Tape and adhesive removal. Retrieved January 18, 2016, from <http://www.maudiemade.com/tape-adhesive-removal/> (I have some real cautions here!)
- River Campus Libraries, University of Rochester. (n.d.). General collections book repair manual. Retrieved January 18, 2016, from <http://www.lib.rochester.edu/index.cfm?PAGE=3242>

March 1 Week 7
Conservation treatment: Humidification and flattening
Experiments

Readings:

- Banik, G. & Bruckle, I. (2011). *Paper and water: A guide for conservators*. Oxford: Butterworth Heinemann.
- Chapter 28: Drying and Flattening. (1995). *Paper Conservation Catalog*. Retrieved January 18, 2016, from http://www.conservation-wiki.com/index.php?title=BP_Chapter_28_-_Drying_and_Flattening
- Chapter 5: Humidification. (1995). *Paper Conservation Catalog*. Retrieved January 18, 2016, from http://www.conservation-wiki.com/index.php?title=BP_Chapter_22_-_Humidification
- Paperonline. (2014). January 18, 2016, from <http://www.paperonline.org/> Read at least the sections on History and Papermaking. The information is from a papermaking company, so take it with a grain of salt.
- Pavelka, K. *Glassine humidifying*. Retrieved January 18, 2016, from http://youtu.be/VJJ_x7kfk2Q

Assignment:

Remove flattened materials from felts and boards and assess. This will be discussed in class on March 8 and all students are expected to be familiar with the outcomes.

March 8 Week 8
Conservation treatment: Humidify and flatten architectural drawings

Readings:

- Baty, J.W., Maitland, C.L., Minter, W., et al. (2010). Deacidification for the conservation of paper based works: A review. *Bioresources*. Retrieved January 18, 2016, from http://ojs.cnr.ncsu.edu/index.php/BioRes/article/view/BioRes_05_3_a_Baty_MMJ_Deacidification_Paper_Review
- Hubbe, M. A., and Bowden, C. (2009). Handmade paper, review, *BioResources* 4(4), 1736-1792. Search the title and journal and the PDF is available.

Assignment:

Flatten drawings from Alexander Architectural Archive.
Due: March 22

March 15 Spring Break
Lab hours to be arranged

March 22 Week 9
Conservation treatment: Mending

Readings:

Chapter 25: Mending. (1995). *Paper Conservation Catalog*. Retrieved January 18, 2016, from http://www.conservation-wiki.com/w/index.php?title=BP_Chapter_25_-_Mending
Gluck, E., Bruckle, I., & Barkhofen, E.-M. (Eds.). (2012). *Paper-Line-Light*. Berlin: Akademie der Kunste.
Kissel, E., & Vigneau, E. (1999). *Architectural photoreproductions: A manual for identification and care*. New York Botanical Gardens: Oak Knoll Press.
Price, L. O. (2010). *Line, shade and shadow: The fabrication and preservation of architectural drawings*. Winterthur Museum and Garden & Library: Oak Knoll Press.

Assignment:

Mend drawings from Alexander Architectural Archive. You must have your treatment skills approved by the instructor before you may proceed with these mends.
Due: April 5

March 29 Week 10
Planning space; Handling objects

Readings:

Objects specialty group conservation wiki. (nd.) Retrieved January 18, 2016, from <http://www.conservation-wiki.com/wiki/Objects>
Paintings specialty group conservation wiki. (nd.) Retrieved January 18, 2016, from <http://www.conservation-wiki.com/wiki/Paintings>
ADD: C2C, NEDCC, etc.

April 5 Week 11
Conservation care: Photographs

Readings:

Photographic materials conservation catalog. (nd.) Retrieved January 18, 2016, from http://www.conservation-wiki.com/wiki/Photographic_Materials

April 12 Week 12
Open labs

April 19 Week 13
Open labs

April 26 Week 14

Open labs

Assignment: Write a short summary of your treatment skills and limitations. - Due May 5

May 3 Week 15
Open labs/Review
Return tools; clean labs

Assignments

OH201 EHS Course

Due immediately

Environmental Health and Safety Office. (2013). Course descriptions. Retrieved January 8, 2014, from <http://www.utexas.edu/safety/ehs/train/courses.html>
Complete OH201

Teflon and micro-spatula

Due February 2

Modify Teflon rod and micro-spatula as shown in class.

Conservation treatment investigation

Due February 2

Submit paper copy

Investigating treatment options

You have been given an object in poor condition that would benefit greatly by conservation treatment. For this assignment you will:

- Identify and describe the damage you would like repaired
- Research what extent of the treatment you might be able to accomplish yourself and write a brief summary of how you would accomplish that
- Identify how you would find a professional to repair the document
- What questions would you pose to the professional and what type of response would you find satisfactory and unsatisfactory?

Simple enclosure construction

Due February 2

Construct enclosure as demonstrated in class.

Enclosure copy

Due February 9

Copy enclosure as demonstrated in class

Varied enclosure designs

Due February 23

Submit paper copy

Enclosure exercise

There is a collection object that needs to be housed. The object is rectangular with the following dimensions:

20 cm. width
30 cm. length
5 cm. height

The object is:

- Extremely fragile
- Easily damaged with minimal physical force
- Extremely light sensitive, corresponding the Blue Wool standard #1
- Very attractive to and easily damaged by various types of insects and rodents
- Very quickly damaged by fluctuations in RH
- Valuable, but not the most valuable object in the collection; not replaceable
- Sought after by collectors

Design five enclosures, one for each of the following conditions:

- Closed stacks in a well staffed, rare book library

- Closed stacks, on a shelf where it is exposed to a window facing the southwest
- Closed stacks, on the lowest shelf in a sub-basement
- Open stacks, good quality shelving; T 68F +/- 2, RH 50% +/-20
- The object will be shipped to another venue in a van with no special shock absorbers and no climate control

For each of the five enclosures you will produce:

- A drawing, specifying dimensions and materials
- A list of tools and specialized equipment needed to build the enclosure
- An explanation of why you chose the design and materials, and what problems they will guard against
- An estimate for the cost of materials, calculated as a percentage of a realistic order
- An estimate for the time required to build the enclosure

Your enclosure designs should be as cost efficient as possible. They should protect against the threats in each situation, but respect the fact that cultural institutions never have adequate budget, staff or space. Moving the object to a space other than the one described in this exercise is not an option.

If it makes you happy you may describe and draw the object, but it is not required. The object can be as unrealistic and magical as you like, but it is not self-repairing. It is the same object in each of the five enclosures.

Experiment design

Due February 16
Submit paper copy

Design experiment as explained in class.

Experiment implementation

April 26
We will discuss in class

Implement experiment as explained in class.

Treatment report

March 7
Submit paper copy

Sample reports will be given in class.

Summary of treatment skills

Due May 5
Submit paper copy

Write a brief summary of what extent of treatment you feel capable to perform on collection material, and when you would need to contact a conservator.