

**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. 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 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 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 and 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.
- 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 8, 2014, 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.

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 9, 2015, from <http://www.indiana.edu/~libpres/manual/mantoc.html>  
National Park Service. (n.d.). Conserv O Grams. Retrieved January 9, 2015, from [http://www.nps.gov/museum/publications/consveogram/cons\\_toc.html](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 12, 2016 from <http://www.archives.gov/preservation/family-archives/>

Pavelka, K. (2013). Evaluation of a microclimate for a short term loan. Retrieved January 9, 2015, 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 12, 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:**

Ash, N., Homolka, S., & Lussier, S. (2014). *Descriptive terminology for works of art on paper* (R. Wolcott, Ed.) (Monograph). Retrieved January 9, 2015, from [http://www.philamuseum.org/doc\\_downloads/conservation/DescriptiveTerminologyforArtonPaper.pdf](http://www.philamuseum.org/doc_downloads/conservation/DescriptiveTerminologyforArtonPaper.pdf)

Appelbaum, B. (2007). *Conservation treatment methodology*. Oxford: Butterworth Heinemann. (Located in 1.506)

Baker, W., Dube, L. (2010). *Identifying Standard Practices in Research Library Book Conservation*. LRTS 54 (1). Retrieved January 9, 2015, from <http://kuscholarworks.ku.edu/dspace/handle/1808/5818>

Chapter 6: Visual examination. (1995). *Paper Conservation Catalog*. Retrieved January 9, 2015, from [http://www.conservation-wiki.com/index.php?title=BP\\_Chapter\\_6\\_-\\_Visual\\_Examination](http://www.conservation-wiki.com/index.php?title=BP_Chapter_6_-_Visual_Examination)

ICON. *Introduction to conservation reports: Treatment reports*. Retrieved January 9, 2015, 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 9, 2015, 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 9, 2015, from [http://www.conservation-wiki.com/wiki/Paper\\_Conservation\\_Catalog\\_-\\_Mold](http://www.conservation-wiki.com/wiki/Paper_Conservation_Catalog_-_Mold)
- Chapter 14: Surface cleaning. (1992). *Paper Conservation Catalog*. Retrieved January 9, 2015, from [http://www.conservation-wiki.com/wiki/BP\\_Chapter\\_14\\_-\\_Surface\\_Cleaning](http://www.conservation-wiki.com/wiki/BP_Chapter_14_-_Surface_Cleaning)
- Dartmouth College Library (2010) *A simple book repair manual*. Retrieved January 9, 2015, from <http://www.dartmouth.edu/~library/preservation/repair/index.html>
- Maudie. (2012, February 3). Tape and adhesive removal. Retrieved January 9, 2015, 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 9, 2015, 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 9, 2015, from [http://www.conservation-wiki.com/index.php?title=BP\\_Chapter\\_28\\_-\\_Drying\\_and\\_Flattening](http://www.conservation-wiki.com/index.php?title=BP_Chapter_28_-_Drying_and_Flattening)
- Chapter 5: Humidification. (1995). *Paper Conservation Catalog*. Retrieved January 9, 2015, from [http://www.conservation-wiki.com/index.php?title=BP\\_Chapter\\_22\\_-\\_Humidification](http://www.conservation-wiki.com/index.php?title=BP_Chapter_22_-_Humidification)
- Paperonline. (2014). January 9, 2015, 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 9, 2015, from [http://youtu.be/VJJ\\_x7kfk2Q](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 9, 2015 from [http://ojs.cnr.ncsu.edu/index.php/BioRes/article/view/BioRes\\_05\\_3\\_a\\_Baty\\_MMJ\\_Deacidification\\_Paper\\_Review](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 9, 2015, from  
[http://www.conservation-wiki.com/w/index.php?title=BP\\_Chapter\\_25\\_-\\_Mending](http://www.conservation-wiki.com/w/index.php?title=BP_Chapter_25_-_Mending)

**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 9, 2015, from  
<http://www.conservation-wiki.com/wiki/Objects>

Paintings specialty group conservation wiki. (nd.) Retrieved January 9, 2015, 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 9, 2015, from  
[http://www.conservation-wiki.com/wiki/Photographic\\_Materials](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.