

## **INF 393C: Preservation Science and Practice**

**Fall 2020**

**Unique Number: 27265**

**Instructor:** Sarah Norris

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Canvas: <https://utexas.instructure.com/courses/1282409>

### **Course Meeting Times**

Wednesdays, 12 PM - 3 PM

### **Course Description**

Ever wondered how libraries and archives safeguard historical materials for future generations? Preservation is the answer. In this course, students learn collections care strategies that enable today's information stewards to protect our growing cultural record. Scientific foundations and practical exercises will address common preservation challenges, such as environmental control, mold, insects, pollutants, and light damage. Modern topics in health, safety, and sustainability will highlight the developing nature of the field. Students will evaluate preservation risks for books, paper, electronic media, and other collections materials.

### **Learning Objectives**

By the end of this course, students should be able to:

- Understand foundational mechanics of HVAC
- Evaluate environmental conditions using a sling psychrometer
- Use the psychrometric chart to assess preservation impact
- Apply current sustainability standards to collections storage environments

- Collect and evaluate data on temperature, relative humidity, and light exposure
- Conduct and report upon integrated pest management
- Understand lifecycle and control of pests and mold
- Assess health and safety issues for preservation practitioners
- Compare and contrast storage needs and preservation risks for books, paper, electronic media, and other collections materials

## **Course Requirements**

There are no prerequisites for this class. Students are expected to attend all classes and complete all reading assignments before each class meeting. There may be one or more off-site class meetings.

## **Assignments**

Please submit all assignments via Canvas unless otherwise instructed. All assignments are due by the beginning of class on the due date. If you have a legitimate reason for an assignment to be late, please discuss it with me as early as possible.

### *Participation (15%)*

Students will be responsible for leading class discussion of assigned readings on one class day. Discussion should include brief synopses of readings, relevance within preservation workflows, and several questions to spur engagement among classmates. Your presentation will serve as the springboard for our class discussion. Your participation grade will stem from your discussion leadership and active participation in the class.

### *Environmental Data Report (5-7 pages) (20%)*

Use a sling psychrometer or environmental monitor to record environmental data at five different locations of your choice around UTA. Use the psychrometric chart to determine other environmental parameters in these areas. Use the Image Permanence Institute Dewpoint Calculator (online) to determine the Preservation Index and materials risks for these areas. Report your findings and explain what they mean. Are the areas you measured safe for collections storage? For what kinds of materials? (Cite references as necessary.) What types of damage might you observe in paper-based materials stored in these areas? What other observations can you make? Do you think the same air handler services all the areas you examined? (Hint: consider whether the observed temperatures and RHs point to the same dewpoint. See IPI's *Step-by-step Workbook: Achieving a Preservation Environment for Collections*.)

### *Exhibit Lighting Recommendations Report (5 pages) (20%)*

Choose three to five sample collection materials from the lab. Arrange them, half-covered, along with a blue wool card, also half-covered, beneath a bright lamp or other steady light source. Use a light meter to measure the illumination and UV coming from the lamp. Keep the lamp on for a week or more. Now, imagine you work with a curator who wants to display these materials in an upcoming exhibit. Write a short report for your curator describing the materials and making recommendations for acceptable light levels and exhibit duration. Refer to your blue wool test card and light readings to support your case. Please check with Sarah if you need help identifying substrate or media in your samples.

*Mold Prevention Report (5 pages) (20%)*

Read the short selection “Case Study Two: A Whiff of Mold? It Can’t Be!” from Miriam Kahn’s *Disaster Response and Planning for Libraries* (see Canvas.) Formulate a set of proactive maintenance guidelines for staff at the discussed library to prevent another mold outbreak. Support your recommendations with references as needed

*Final Report: RFP for a Preservation Storage Facility (25%)*

A Request for Proposals (RFP) is a business document soliciting vendors to bid on contracted work. Students will write an RFP seeking a general construction contractor to build a new library and archives preservation storage facility. The RFP should include specific project description, scope, and goals. It should address environmental controls, HVAC, building envelope, lighting, pest management, and other issues. RFPs will be evaluated for clarity and thoroughness of presentation, assuming an audience of prospective vendors who do not have a background in libraries, archives, or preservation.

For this project, assume your varied collection includes books, manuscripts, photographs, and audiovisual materials. You’re seeking a 30,000 square foot facility on land your institution owns in the Austin area.

Sections in the RFP must include the following (and may include others as needed):

**Project Introduction:** Briefly summarize your institution and project goals

**Scope of Services:** Provide detailed descriptions of the features you want in your building. You may cite references or draw diagrams as needed to better explain preservation requirements to prospective vendors.

**Proposal Requirements:** Describe what the vendor’s submission should look like. Do you want to see past experience? References? How can the vendor demonstrate they are the best candidate for you?

**Evaluation of Proposals:** Describe how you will evaluate submitted proposals. You might devise a point system or other evaluation mechanism. Be sure your evaluation scheme accurately reflects your priorities, and that it’s clear and transparent enough to protect you from any appearance of favoritism.

Sample facilities construction RFPs:

<https://www.courts.ca.gov/documents/gcfmti-rfp.pdf>

<http://hinesburg.org/rfp/hinesburg-police-request-for-proposals-080213.pdf>

<https://incouragecf.org/wp-content/uploads/2015/04/Incourage-Construction-Manager-RFP.pdf>

## **Evaluation**

Each assignment will count for the percentage of your course grade as listed after the assignment's title above.

I will use the following schedule as the basis for calculating grades: A=95-100, A-=89-<95, B+=84-<89, B=79-<84, B-=74-<79, C+=69-<74, C=64-<69, C-=60-<64, F=<60. Grades will be reduced by 2 points for every day they are late unless prior arrangements have been made.

## **Required Texts**

Northeast Document Conservation Center. *Preservation 101: Preservation Basics for Paper and Media Collections, Online Textbook*. Accessed April 2020 at <https://www.nedcc.org/preservation101/welcome>

This free, online text was developed by NEDCC with funding from IMLS, the Institute for Library and Museum Services. The text is used with NEDCC's "Preservation 101" class. We will use it as a backbone for our course, and supplement its introductory material with additional readings.

## **Announcements**

### **University of Texas Honor Code**

Every student is expected to abide by The University of Texas Honor Code, which should be read and understood before taking any class. It can be found here:

<http://www.engr.utexas.edu/undergraduate/forms/462-university-of-texas-honor-code>

### **Policy on Academic Integrity**

Plagiarism will not be tolerated. You may fail the course, and/or be dismissed from the School of Information and/or the University if you are found plagiarizing. UT has a tutorial describing plagiarism here: <http://www.lib.utexas.edu/services/instruction/learningmodules/plagiarism/>

### **Documented Disability Statement**

A student with a documented disability who requires academic accommodations should contact Services for Students with Disabilities at 512-471-6259 (voice) or 512-232-2937 (video phone) or <http://diversity.utexas.edu/disability/> Please let me know about anything that will help you succeed whether or not it is related to any disability.

### **Use of email for official correspondence**

Email is recognized as an official mode of University correspondence. You are expected to maintain ongoing, current familiarity with class communications via email, and to contact me for any needed clarification.

### **Land Acknowledgement**

We acknowledge that the iSchool sits on indigenous land. The Tonkawa lived in central Texas and the Comanche and Apache moved through this area. Today, various indigenous peoples from all over the globe visit Austin and/or call it home. We are grateful to be able to study and learn on this piece of Turtle Island. Since some of our classes are online, you may be contributing from other tribal lands. Here is a map that may help you in identifying the indigenous peoples of the land on which you study: <https://native-land.ca/>

### **Religious Holy Days**

You must notify me at least 14 days in advance of any absence or accommodation for a religious holy day. We will determine an appropriate substitute on a case by case basis.

### **Class Recordings**

Online class sessions will be recorded in Zoom. Class recordings are reserved only for the use of members of this class (students and the instructor) and only for educational purposes. Recordings should not be shared outside the class in any form. Violation of this restriction could lead to Student Misconduct proceedings.

### **Sharing of Course Materials is Prohibited**

No materials used in this class, including, but not limited to, lecture hand-outs, videos, assessments (quizzes, exams, papers, projects, homework assignments), in-class materials, review sheets, and additional problem sets, may be shared online or with anyone outside of the class unless you have my explicit, written permission. Unauthorized sharing of materials promotes cheating. It is a violation of the University's Student Honor Code and an act of academic dishonesty. I am well aware of the sites used for sharing materials, and any materials found online that are associated with you, or any suspected unauthorized sharing of materials, will be reported to Student Conduct and Academic Integrity in the Office of the Dean of Students. These reports can result in sanctions, including failure in the course.

### **COVID-19 and Our Class**

To help control the spread of COVID-19, this class will meet almost totally online. Two campus visits will be required: one at the beginning of the semester, to pick up a supply kit; and one at the end of the semester, to return the supply kit. We will schedule curbside pickup and drop-off sessions. Please remember to wear a mask when you visit campus.

Online class sessions will take place on the Canvas platform ([canvas.utexas.edu](https://canvas.utexas.edu)), where class meetings are scheduled in Zoom. Please familiarize yourself with Canvas and Zoom before the first day of class. Please also observe the following guidelines to help Zoom sessions go smoothly:

- Close applications that will distract you during class (e-mail, social media, etc.)
- Use a headset or earbuds with a microphone, if possible.
- Mute yourself when not speaking.

### **Safety and Class Participation/Masks**

We will all need to make some adjustments in order to benefit from in-person classroom

interactions in a safe and healthy manner. Our best protections against spreading COVID-19 on campus are masks (defined as cloth face coverings) and staying home if you are showing symptoms. Therefore, for the benefit of everyone, this means that all students are required to follow these important rules.

*Every student must wear a cloth face covering properly in class and in all campus buildings at all times.* If a student is not wearing a cloth face covering properly in the classroom (or any UT building), that student must leave the classroom (and building). If the student refuses to wear a cloth face covering, class will be dismissed for the remainder of the period, and the student will be subject to disciplinary action as set forth in the university's Institutional Rules/General Conduct 11-404(a)(3). Students who have a condition that precludes the wearing of a cloth face covering must follow the procedures for [obtaining an accommodation](#) working with Services for Students with Disabilities.

For the safety of our community, every student is strongly encouraged to do daily symptom screening, which is available using the Protect Texas Together app. Once the symptom screening is completed, it will inform students whether they are cleared to come to campus. Students should only come to campus if the symptom screening app clears them to do so. Otherwise, students should isolate and contact a medical professional for further guidance before coming to campus again.

Information regarding [safety protocols with and without symptoms](#) can be [found here](#).

### **COVID Reporting**

To help keep everyone at UT and in our community safe, it is critical that students report COVID-19 symptoms and testing, regardless of test results, to [University Health Services](#), and faculty and staff report to the [HealthPoint Occupational Health Program \(OHP\)](#) as soon as possible. Please see this [link](#) to understand what needs to be reported. In addition, to help understand what to do if a fellow student in the class (or the instructor or TA) tests positive for COVID, see this [University Health Services link](#).

**Course Schedule** <https://registrar.utexas.edu/calendars/20-21>

**Week 1: 8/26 (Please note: each week's readings must be completed before class for discussion during class.)**

#### **Introduction to Preservation and Paper-Based Materials**

- Introduce class and syllabus
- Become acquainted with lab access and safety
- Select students to lead discussion on each week's readings
- Discuss readings

#### *Readings*

Northeast Document Conservation Center. *Preservation 101: Preservation Basics for Paper and Media Collections, Online Textbook*. "Session 1: Introduction to Preservation" and "Session

4: Caring for Paper Collections.” Accessed May 2020 at <https://www.nedcc.org/preservation101/session-1> Within Session 4, focus especially on “Papermaking;” “Inherent Vice: Materials;” “Inherent Vice: Structures;” and “External Factors.”

## **Week 2: 9/2**

### **The Preservation Environment: Temperature, Relative Humidity, and Their Impact on Collections**

-Discuss readings

-In-class exercise: students explore the hygroscopic nature of paper by flattening varied samples with and without humidification.

#### *Readings*

Northeast Document Conservation Center. *Preservation 101: Preservation Basics for Paper and Media Collections, Online Textbook*. “Session 2: The Building and Environment.” Accessed May 2020 at <https://www.nedcc.org/preservation101/session-2>

This chapter introduces many interrelated topics we will explore in further detail in the coming weeks. This week, focus especially on “The Storage Environment.”

Wilson, W. NISO TR-01 1995: *Environmental Guidelines for the Storage of Paper Records*. 1995: NISO Press, Bethesda, MD. Accessed May 2020 at <https://www.niso.org/sites/default/files/2017-08/tr01.pdf>

Bogaard, John, and Paul M Whitmore. “Explorations of the Role of Humidity Fluctuations in the Deterioration of Paper.” *Studies in Conservation: Contributions to the Baltimore Congress, 2-6 September 2002. Works of Art on Paper Books, Documents and Photographs: Techniques and Conservation* 47.sup3 (2002): 11–15. Web.

Haslach, Henry. “The Moisture and Rate-Dependent Mechanical Properties of Paper: A Review.” *Mechanics of Time-Dependent Materials* 4.3 (2000): 169–210. Web.

## **Week 3: 9/9**

### **HVAC and Buildings: Creating Controlled Environments**

-Discuss readings

-In-class exercise: The class will make a simple air-conditioner. Then we will brainstorm and test design modifications to produce lower RH and/or temperature. This exercise will demonstrate some of the fundamental properties that underlie climate control for preservation.

#### *Readings*

Northeast Document Conservation Center. *Preservation 101: Preservation Basics for Paper and Media Collections, Online Textbook*. “Session 2: The Building and Environment.” Accessed May 2020 at <https://www.nedcc.org/preservation101/session-2> Focus especially on “General Building Issues” and “Controlling the Environment.”

Ogden, Barclay. *Collection Preservation in Library Building Design*. 2003: Libris Design Project and Institute of Museum and Library Services. Accessed May 2020 at <https://calpreservation.org/wp-content/uploads/2015/03/LibrisPreservation.pdf> (PDF available on Canvas.)

Conrad, Ernest. "SAA Integrates with ASHRAE." *ASHRAE Transactions* 116 (2010): 203–206. Web.

Padfield, T. (2000). *How air conditioning works*. Retrieved April, 2020, from <https://www.conservaionphysics.org/aircon/aircon.pdf>

Shahani, C.J., Hengemihle, F.H., Weberg, N., 1989. The effect of variations in relative humidity on the accelerated aging of paper, in: *Historic Textile and Paper Materials II*. American Chemical Society, pp. 63–80.

#### **Week 4: 9/16**

##### **The Psychrometric Chart: Evaluating Environment the Analog Way**

-Discuss readings

-In-class exercise: students use the psychrometric chart to solve word-problem-style questions.

##### *Readings*

Sherif, S. "Overview of Psychrometrics." *ASHRAE Journal* 44.7 (2002): 33. Web.

Gatley, Donald, and Donald Gatley. "Psychrometric Chart Celebrates 100th Anniversary." *ASHRAE Journal* 46.11 (2004): 16–20. Web.

Traub, Darren A. "The Psychrometric Chart: How to Use it.(Drying Files)." *Process Heating* 10.8 (2003): n. pag. Print.

Enthalpy of Air; Sensible Heat of Air; Latent Heat of Air. 2020: Bright Hub PM. Accessed May 2020 at

<https://www.brighthouseengineering.com/hvac/40137-sensible-and-latent-heat-of-air/>

Relative Humidity Table (See Canvas.)

Mecklenburg, M.F., 2007. Determining the acceptable ranges of relative humidity and temperature in museums and galleries. Smithsonian Museum Conservation Institute, Suitland, MD.

#### **Week 5: 9/23**

##### **Environmental Data Gathering**

-Discuss readings

-In-class exercise: students use a sling psychrometer or other available environmental monitors to evaluate environmental conditions within UTA. Assign and begin working on Environment Data Report as time allows.

##### *Readings*

Northeast Document Conservation Center. *Preservation 101: Preservation Basics for Paper and Media Collections, Online Textbook*. "Session 2: The Building and Environment." Accessed May 2020 at <https://www.nedcc.org/preservation101/session-2> This week, focus especially on "Monitoring the Environment."

Image Permanence Institute. *Step-by-Step Workbook: Achieving a Preservation Environment for Collections. August 2005*: Rochester, NY. Accessed May 2020 at [http://dp3project.org/webfm\\_send/318](http://dp3project.org/webfm_send/318)

Arenstein, R. and S. Alderson. *Comparing Temperature and Relative Humidity Dataloggers for Museum Monitoring*. September 2011: National Parks Service Conserve-O-Gram 3.3 Accessed May 2020 at <https://www.nps.gov/museum/publications/conservoogram/03-03.pdf>

Iowa Department of Transportation. *Determining Relative Humidity with a Sling Psychrometer*. Accessed May 2020 at <https://www.iowadot.gov/erl/current/im/content/382.htm>

## **Week 6: 9/30**

### ***Assignment Due: Environment Data Report***

#### **Pollutants and Acidity**

-Discuss readings

-In-class exercise: investigate the acidity of varied collection materials and collection storage materials.

#### *Readings*

Wilson, W. NISO TR-01 1995: *Environmental Guidelines for the Storage of Paper Records*. 1995: NISO Press, Bethesda, MD. Accessed May 2020 at <https://www.niso.org/sites/default/files/2017-08/tr01.pdf> Revisit this source from Week 2 and focus on Section 2.3, Gaseous Contaminants; Section 2.4, Particulates; and Section 5, Air Contaminants.

Grzywacz, C. M. (2006). *Tools for conservation. Monitoring for gaseous pollutants in museum environments*. Los Angeles: Getty Conservation Institute. Accessed April 2020 at [https://www.getty.edu/conservation/publications\\_resources/pdf\\_publications/pdf/monitoring.pdf](https://www.getty.edu/conservation/publications_resources/pdf_publications/pdf/monitoring.pdf) Focus on Chapter 1, Gaseous Pollutants in Museum Environments: Overview; Chapter 2, The Effects of Gaseous Pollutants on Objects; and Appendix 1, Major Gaseous Pollutants of Concern to Museums, Their Sources, and At-Risk Materials

Lloyd, Helen, Peter Brimblecombe, and Katy Lithgow. "Economics of Dust." *Studies in Conservation* 52.2 (2007): 135–146. Web.

A.-L. Dupont & J. Tetreault (2000) "Cellulose Degradation in an Acetic Acid Environment," *Studies in Conservation*, 45:3, 201-210, DOI: [10.1179/sic.2000.45.3.201](https://doi.org/10.1179/sic.2000.45.3.201)

Chandru J. Shahani & Gabrielle Harrison (2002) SPONTANEOUS FORMATION OF ACIDS IN THE NATURAL AGING OF PAPER, *Studies in Conservation*, 47:sup3, 189-192, DOI: [10.1179/sic.2002.47.s3.039](https://doi.org/10.1179/sic.2002.47.s3.039)

## **Week 7: 10/7**

### **Describing and Measuring Light and Color**

-Discuss readings

-In-class exercise: students set up light testing with blue wool cards and sample collection materials. Take light readings and UV readings in preparation for the Exhibit Lighting Recommendations Report.

#### *Readings*

Conn, Donia. *Protection from Light Damage*. 2012: NEDCC Preservation Leaflet 2.4. Accessed May 2020 (see PDF on Canvas.)

Johnston-Feller, Ruth. *Color Science in the Examination of Museum Objects*. 2001: Getty Conservation Institute, Los Angeles, CA. Chapter 2: Colorimetry. Accessed May 2020 at [https://www.getty.edu/conservation/publications\\_resources/pdf\\_publications/pdf/color\\_scienc.pdf](https://www.getty.edu/conservation/publications_resources/pdf_publications/pdf/color_scienc.pdf)

Del Hoyo-Meléndez, Julio M., Marion F. Mecklenburg, and María Teresa Doménech-Carbó. "Determination of the Annual Light Exposure Received by Two-Dimensional Museum Objects Displayed on Vertical Surfaces Using Photometric Measurements." *Studies in Conservation* 56, no. 1 (2011): 31-40. Accessed May 18, 2020. [www.jstor.org/stable/42751736](http://www.jstor.org/stable/42751736).

### **Week 8: 10/14**

#### **How Light Causes Damage**

-Discuss readings  
-In-class exercise: evaluate light testing results. Assign and begin work on Exhibit Lighting Recommendations Report.

#### *Readings*

Richardson, C, and D Saunders. "Acceptable Light Damage - A Preliminary Investigation." *Studies In Conservation* 52.3 (2007): 177–187. Print.  
Wagner, Sarah, Connie McCabe, and Barbara Lemmen. (2007). *Guidelines for Exhibition Light Levels for Photographic Materials*. PDF file retrieved from <http://download.aaslh.org/AASLH-Website-Resources/ccaha-guidelines-for-exhibition-light-levels.original.pdf> (See Canvas.)  
Venosa, Andrea, Daniel Burge, and Douglas Nishimura. "Effect of Light on Modern Digital Prints: PHOTOGRAPHS AND DOCUMENTS." *Studies in Conservation* 56, no. 4 (2011): 267-80. Accessed May 18, 2020. [www.jstor.org/stable/24673144](http://www.jstor.org/stable/24673144).

### **Week 9: 10/21**

#### **Assignment Due: Exhibit Lighting Recommendations Report**

#### **Lifecycle of Pests and Mold**

-Discuss readings  
-Zoom visit to view and mold-damaged documents and discuss their storage and provenance: Tonia Wood, Reference Archivist, Texas State Library and Archives Commission.  
-Assign Mold Prevention Report

#### *Readings*

Integrated Pest Management Working Group. *MuseumPests.net*. Accessed May 2020. Focus on three sections of this website:

- Pest Fact Sheets: <https://museumpests.net/identification/identification-pest-fact-sheets/>
- Identification Image Library: <https://museumpests.net/identification/identification-image-library/>
- The Dirty Dozen of Museum Pests: <https://museumpests.net/wp-content/uploads/2015/04/Insects-Limited-Museum-Dirty-Dozen-single-sheet-A4.pdf>

U.S. Environmental Protection Agency. *Introduction to Mold and Mold Remediation for Environmental and Public Health Professionals*. Chapters 1-3. Accessed May 2020 at <https://www.epa.gov/mold/mold-course-chapter-1>.

National Park Service. Conserve O Gram, Number 3/4: *Mold and Mildew: Prevention of Microorganism Growth in Museum Collections*. Accessed May 2020 at <http://www.archives.gov/preservation/conservation/mold-prevention.html>. See Canvas. Konkol, Nick R. et al. "Early Detection of Fungal Biomass on Library materials.(Report)." *Journal of Cultural Heritage* 13.2 (2012): 115–119. Web.

## **Week 10: 10/28**

### **Controlling Pests and Mold**

-Discuss readings

-Guest speaker on IPM: Alan Van Dyke, Senior Preservation Technician, Harry Ransom Center.

#### *Readings*

Parker, Thomas. *Preservation Leaflet 3.10: Integrated Preventive Pest Management*. 2015: Northeast Document Conservation Center. Retrieved May 2020 from [https://www.nedcc.org/assets/media/documents/Preservation%20Leaflets/3\\_10\\_pests\\_2018rev119.pdf](https://www.nedcc.org/assets/media/documents/Preservation%20Leaflets/3_10_pests_2018rev119.pdf) (See Canvas.)

Cabral, Udaya Prasad, and Pascal Querner. "Four Step Strategy for Implementing IPM in Libraries in Sri Lanka." *Restaurator. International Journal for the Preservation of Library and Archival Material* 38.4 (2017): 383–393. Web.

Ryder, Suzanne, and Armando Mendez. "Using Risk Zones in Museums as Part of an IPM Programme: Does It Work?" *Studies in Conservation* 64.4 (2019): 203–207. Web.

U.S. Environmental Protection Agency. *Introduction to Mold and Mold Remediation for Environmental and Public Health Professionals*. Chapter 9: Prevention. Accessed May 2020 at <https://www.epa.gov/mold/mold-course-chapter-9>

Lee, Mary Wood. *Prevention and Treatment of Mold in Library Collections with an Emphasis on Tropical Climates: A RAMP Study*. 1988: UNESCO PGI-88/WS/9. Chapters 3-4. Accessed May 2020 at <https://unesdoc.unesco.org/ark:/48223/pf0000080496> (See Canvas.)

## **Week 11: 11/4**

### **Assignment due: Mold Prevention Report**

#### **Health & Safety**

-Discuss readings

-In-class exercise: Using OSHA and NIOSH guidelines, students will work together to rank a set of conservation lab chemicals according to their level of human risk.

#### *Readings*

Colton, Craig. *A Conservator's Guide to Respiratory Protection*. 2016: American Institute for the Conservation of Historic and Artistic Works, Washington, D.C. See Canvas.

Centers for Disease Control and Prevention. *PPE Sequence*. CS250672-E. See Canvas.

Pettigrew, H. et al. "Mold and Human Health: Separating the Wheat from the Chaff." *Clinical Reviews in Allergy & Immunology* 38.2-3 (2010): 148–155. Web.

Bolstad-Johnson, Dawn. "The Hidden Hazards of Fire Soot." *AIC News* 35:5. September 2010: American Institute for Conservation of Historic and Artistic Works, Washington, D.C. pp. 1, 3-5. See Canvas.

Occupational Safety and Health Administration. *Hazard Communication Standard: Safety Data Sheets*. DSG BR-3514 2/2012. See Canvas.

Occupational Safety and Health Administration. *Hazard Communication Standard: Labels and Pictograms*. DSG BR-3636 2/2013. See Canvas.

Tedone, Melissa. "Poison Book Project." Accessed April 2020 at [http://wiki.winterthur.org/wiki/Poison\\_Book\\_Project](http://wiki.winterthur.org/wiki/Poison_Book_Project)

## **Week 12: 11/11**

### **Sustainability**

-Discuss readings

-In-class exercise: Class will run a miniaturized simulation of how collections materials buffer environmental fluctuations in a storage facility. This buffering is part of what enables recommendations for sustainable seasonal drift.

-Assign RFP

### *Readings*

Henry, Michael. *What Will the Cultural Record Say About Us? Stewardship of Culture and the Mandate for Environmental Sustainability*. 2007: Gray Areas to Green Areas Conference at the University of Texas. Accessed May 2020 at <https://www.ischool.utexas.edu/kilgarlin/gaga/proceedings2008/GAGA07-henry.pdf> See Canvas.

Ryhl-Svendsen, Marten, Lars Aasbjerg Jensen, Poul Klensz Larsen, and Tim Padfield. *Does a Standard Temperature Need to Be Constant?* 2010: Going Green Conference at the British Museum. Accessed May 2020 at <http://www.conservationphysics.org/standards/standardtemperature.php> See Canvas.

Romano, Christine, et. al. *Sustainable Practices Wiki*. American Institute for Conservation. Accessed May 2020 at [http://www.conservation-wiki.com/wiki/Sustainable\\_Practices](http://www.conservation-wiki.com/wiki/Sustainable_Practices). Please look through all sections: Introduction to Sustainability; Sustainable Material Use and Disposal; Information about Specific Materials; Sustainable Energy Use; Sustainability Case Studies.

## **Week 13: 11/18**

### **Varied Media, Varied Risks**

-Discuss readings

-In-class exercise: student teams assume curatorial roles over varied collections materials in a fictional institution. Through a table-top decision-making exercise, the teams formulate facilities and storage priorities for their institution's director.

### *Readings*

Northeast Document Conservation Center. *Preservation 101: Preservation Basics for Paper and Media Collections, Online Textbook*. "Session 5: Care and Handling of Photographs" and "Session 6: Media Collections." Accessed May 2020 at

<https://www.nedcc.org/preservation101/session-5> and  
<https://www.nedcc.org/preservation101/session-6>

Adelstein, P. Z., J. -L. Bigourdan, and J. M. Reilly. "Moisture Relationships of Photographic Film." *Journal of the American Institute for Conservation* 36, no. 3 (1997): 193-206. Accessed May 18, 2020. doi:10.2307/3179948. See Canvas.

Hess, Richard. "ARSC Conference Paper - Tape Degradation Factors and Challenges in Predicting Tape Life." *ARSC Journal* 39.2 (2008): 240–274. Web.

Bereijo, Antonio. "The Conservation and Preservation of Film and Magnetic Materials (1): Film Materials." *Library Review* 53.5/6 (2004): 323–331. Web.

Shashoua, Yvonne. *Conservation of Plastics: Materials Science, Degradation and Preservation*. 1st ed. Amsterdam, Netherlands: Elsevier, 2008. Print. Chapter 7: Conservation of Plastics. (See Canvas.)

#### **Week 14: 12/2**

##### **Wrap-Up**

- Discuss any remaining or new issues
- Work time for RFPs

#### **12/7: Last Class Day**

***Assignment Due: Final Report: RFP for a Preservation Storage Facility.***