**-DRAFT SYLLABUS-**

**INF 385T: Preservation Science and Practice**

**Fall 2020**

**Unique Number: 27265**

**Instructor:** Sarah Norris

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Lab: UTA 1.506B

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Office hours: TBA

**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 (%)*

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. About 1/2 of your participation grade will stem from your discussion leadership; about 1/2 will come from your active participation in the class.

*Sling Psychrometer Data Report (%)*

Students will use a sling psychrometer to gather environmental data from a library or archives collection (TBA.) Students will present recorded data and evaluate suitability of various locations for collections storage. Report will be evaluated for clarity of presented data and strength of rationale for storage recommendations.

*Light Test on Varied Media Report (%)*

Students will collect data from in-class light testing on varied media. Comparing test results with those from a blue wool standard, students will evaluate the lightfastness and acceptable light exposure parameters for the selected media.

*Pests & Mold Report (%)*

TBA

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

**Evaluation**

Point value per assignment.

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.

**Suggested / Required Texts (under review)**

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>

**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.

**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.

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

**Week 1: 8/26**

**Introduction**

-Introduce class and syllabus

-Become acquainted with lab access and safety

-Select students to lead discussion on each week’s readings

-Discuss readings

*Readings*

-Intro to preservation goals and concepts

-Northeast Document Conservation Center. *Preservation 101: Preservation Basics for Paper and Media Collections, Online Textbook*. “What Is Preservation?” Accessed April 2020 at <https://www.nedcc.org/preservation101/session-1/1what-is-preservation>

-CAP, MAP, and StEPS: scan through these links to familiarize yourself with how institutions can use preservation knowledge to seek funding.

<https://www.culturalheritage.org/resources/collections-care/cap>

<https://www.aam-us.org/programs/accreditation-excellence-programs/map-assessment-types/>

<https://aaslh.org/programs/steps/>

**Week 2: 9/2**

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

-Discuss readings

-In-class exercise: students build humidity chambers and describe behavior of various sample papers inside

*Readings*

-Temperature

-RH

-Interrelation of these concepts

-Effects on paper-based materials

**Week 3: 9/9**

**HVAC and Buildings: The Science of Controlled Environments**

-Discuss readings

-In-class exercise: Student pairs or groups formulate responses to environmental control case studies in libraries, archives, or museums. Groups discuss and debate the relative merits of their proposed solutions. (May include role-playing component.)

*Readings*

-HVAC

-Building envelope

-Fire suppression systems (dry pipe vs. wet pipe)
-Padfield, T. (2000). *How air conditioning works*. Retrieved April, 2020, from <https://www.conservationphysics.org/aircon/aircon.pdf>

**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*

-Psychrometric chart fundamentals

-Wet bulb and dry bulb temperatures

**Week 5: 9/23**

**The Sling Psychrometer and Environmental Data Gathering**

-Discuss readings

-In-class exercise: students use a sling psychrometer to evaluate environmental conditions in a library or archives collection (TBA.) Begin working on Psychrometer Data Report assignment as time allows.

*Readings*

-PEMs, HOBOs, and environmental monitors

**Week 6: 9/30**

***Assignment Due: Sling Psychrometer Data Report***

**Pollutants**

-Discuss readings

-In-class activity TBA

*Readings*

*-*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> (Specific sections TBA.)

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

**Week 7: 10/7**

**Describing and Measuring Light and Color**

-Discuss readings

-In-class exercise: students set up light-testing chambers with assorted light sources. Students create test cards with varied media and launch light tests with blue wool standards.

*Readings*

-Color spaces

-CIELAB

-Blue wool standard

**Week 8: 10/14**

**How Light Causes Damage**

-Discuss readings

-In-class exercise: evaluate light testing. Begin work on Light Test on Varied Media Report.

*Readings*

-Light’s impact on paper

-Light’s impact on media

-Exhibit concerns vs. storage concerns

-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>

**Week 9: 10/21**

***Assignment Due: Light Test on Varied Media Report***

**Lifecycle of Pests and Mold**

-Discuss readings

-Visit a collection (TBA) to view mold-damaged documents and discuss their storage and provenance

-In-class assignment: Pests & Mold Report: TBA

*Readings*

-Mold spores, growth, and environment

-Pest lifecycles

-Florian, M.-L. E. (2002). *Heritage eaters: Insects & fungi in heritage collections*. London: James & James. (Specific sections TBA.)

**Week 10: 10/28**

**Controlling Pests and Mold**

-Discuss readings

-Guest speaker on IPM (practitioner from campus or local collection, TBA.)

*Readings*

-Integrated pest management

-Freezing

-Cleaning mold

-Conservation treatment paper on mold-damaged item

-NEDCC Preservation Leaflet: “Integrated Preventive Pest Management” <https://www.nedcc.org/assets/media/documents/Preservation%20Leaflets/3_10_pests_2018rev119.pdf>

**Week 11: 11/4**

***Assignment due: Pests & Mold Report***

**Health & Safety**

-Discuss readings

-In-class exercise: Scenario-based decision making - respond to a mold outbreak in-house or through a vendor?

*Readings*

-PPE

-Mold

-Asbestos

-Soot

-“Adverse Human Health Effects Associated with Molds in the Indoor Environment.” Journal of Occupational and Environmental Medicine 45.5 (2003): 470–478. Web. (Seeking UT Libraries access.)

-Tedone, Melissa. “Poison Book Project.” Accessed April 2020 at <http://wiki.winterthur.org/wiki/Poison_Book_Project>

[http://www.conservation-wiki.com/wiki/Health\_%26\_Safety:\_%22AIC\_News%22\_Articles\_and\_Guides](http://www.conservation-wiki.com/wiki/Health_%26_Safety%3A_%22AIC_News%22_Articles_and_Guides)

<http://www.conservation-wiki.com/w/index.php?title=Category:Health_%26_Safety&redirect=no>

**Week 12: 11/11**

**Sustainability**

-Discuss readings

-In-class exercise TBA

*Readings*

-Seasonal drift in managed environments (Image Permanence Institute)

-Materials reuse and recycling in preservation and conservation

-Green buildings for preservation

-Sustainability case studies: <http://www.conservation-wiki.com/wiki/Sustainability_Case_Studies>

[http://www.conservation-wiki.com/wiki/Sustaining\_the\_Unsustainable:\_Mitigation\_and\_Monitoring\_for\_Modern\_Materials](http://www.conservation-wiki.com/wiki/Sustaining_the_Unsustainable%3A_Mitigation_and_Monitoring_for_Modern_Materials)

**Week 13: 11/18**

**Varied Media, Varied Risks**

-Discuss readings

-In-class exercise: TBA

*Readings*

-Audio

-Film

-Computer media

-Preservation Self-Assessment Tool <https://psap.library.illinois.edu/>

**Week 14: 12/2**

**Wrap-Up**

-Discuss readings

-Work time for final reports

*Readings*

-TBA

**12/7: Last Class Day**

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