SCHOOL OF INFORMATION
THE UNIVERSITY OF TEXAS AT AUSTIN

RISK ASSESSMENT AND COLLECTIONS MANAGEMENT

INF 392F Spring 2015 Unique # 27920

Instructor: Karen L. Pavelka
Class location: UTA 1.506B
Date and time: Thursday 9:00 - 11:45

Instructor Information
Email: pavelka@utexas.edu
Office: UTA 5.422 phone: 512-471-8286
Lab: UTA 1.506B phone: 512-471-8269 (Most likely to be here.)
Office hours: Held in lab; will be announced and posted on lab doors.

Course description: Assessing risks in cultural heritage collections with an emphasis on library and archival collections; developing strategies to manage risks; learning practical techniques to reduce risk.

Learning objectives
Students will learn to:

- Assess risks within collections
- Compare the relative probability and magnitude of various risks
- Select and apply mitigation strategies
- Evaluate the effectiveness of mitigation strategies
- Identify the difference between symbolic and useful plans

Academic Integrity
The University of Texas policies on academic integrity can be found at
http://deanofstudents.utexas.edu/sjs/acint_student.php
If you have not read the section on plagiarism recently, it is worth a review. Plagiarism and academic dishonesty will not be tolerated.

Students with disabilities
Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services ofr Students with Disabilities, 512-471-6259.

Assignment guidelines

- Assignments are due at midnight on the due date. Unless otherwise instructed, please submit assignments on Canvas. All assignments must be submitted as a Word doc and the document should be titled as follows: studentlastname_assignmentname

- Late assignments will be penalized by lowering the earned grade one level for each day it is late.
- Exceptions to these penalties maybe granted if you make arrangements with me at least 48 hours before the assignment is due.
- If the assignment directions are not clear, or if you are having a problem with an assignment, please let me know as early as possible.

All writing exercises:

- Should have a bibliography.
- Should be well written.
- Should be reviewed by a peer before being turned in.

Assignments

T&RH Monitoring exercise
Begin January 22; due February 12
Repeat dates to be decided **Omitted**
(Group exercise; summaries will be written individually.)

- Collect all T & RH monitoring devices.
- Calibrate instruments or record error.
- Place all instruments in in one location for one week.
- Calibrate instruments or record error.
- Place devices around building with the goal of getting as much fluctuation as possible while still mimicking realistic collection spaces. For instance, placing a device on a shelf a foot away from a window is reasonable, placing it against the glass not.
- Calibrate instruments or record error.
- Compare readings initially, after 24 hours, at the end of the week.
- Write a summary of the results.
- This exercise will be repeated at the end of the semester when weather conditions have changed.

Threats exercise
Due February 26

- Visit a collection; consider the materials on display and in the catalogue.
- Describe the most prominent materials.
- Describe the less prominent materials.
- Rank the threats to the collection according to the 10 agents of deterioration.

Storage and housing exercise
Due February March 5
Write a cost comparison between types of high end and low end storage systems listed below. Consider the effect on deterioration and handling. Suggest any solutions to improve the poor storage other than purchasing all new materials.

- Powder coated steel flat files vs. maps rolled in cardboard tubes.

- Archival quality document boxes and folders, stored at no more than 20 per folder vs. Bankers boxes and cheap folders holding 100 documents per folder.

Microclimate exercise **This will be combined with the lighting exercise.**
Implementation due March 12
Assessment due April 16

- Construct a microclimate; install an object; install a duplicate object outside the microclimate; compare by monitoring and by observation. The microclimate can be designed to reduce any type of threat; it is not limited to T, RH and light.
- Write a brief assessment of the value of the microclimate.

IPM exercise
Due March 26 **Changed to due April 30**
(Group exercise; summaries will be written individually.)

- Research pests likely to be found in Austin and the damage they do to collections.
- Develop a hierarchy of most to least threatening insects according to types of materials.
- Split class into: Books and paper; textiles; paintings and objects.
- Each group will track their most damaging pest.
- Write a plan for IPM according to the information you have found.

Security exercise
Due April 9

- Identify the most obvious security flaws in an institution related to theft or vandalism. (The specific institution will be discussed in class.)
- Identify the possible methods for theft or vandalism.
- Identify the methods that could be employed to reduce threats.
- Write a persuasive memo to have the improvements considered or adopted.

Lighting exercise **Combined with microclimate exercise.**
~~Due April 16~~

- ~~Examine the fading sample presented in class.~~
- ~~Design and construct a fade test to address a specific problem.~~

Climate debate essay
Due April 16

- Review the literature and write a short paper in which you take a stand about how stringent controls should be. Essays will be judged on specificity and rational. Avoid "it depends" statements.

Events essay **This will be changed to class discussion and graded on participation. Students will have the option of turning in a written assignment in lieu of participation.**
Due April 23

- Receptions are often held in collection display areas such as galleries even though the risks from such events are high.
- Describe the risks of holding a reception in a gallery. The specific venue will be discussed in class.
- Describe steps you might take to reduce risks.
- Prioritize the risks according to the level of protection.
- Prioritize the risks according to disruption to the event.

Class attendance and participation

- Students are expected to attend all classes. If you need to miss a class, if possible let me know before class begins.
- All readings should be done before the class meets.
- Class participation is 20% of your grade and is measured by contributions to discussions, enthusiastic participation in class exercises, and anything the student can bring to make the class a richer experience for everyone.
- If you are having trouble participating in class, please come and talk to me. We may be able to find strategies to help you.

Grading

Grade points will be distributed as follows:

T&RH exercise, phase 1	15%
T&RH exercise, phase 2	5%
Threats exercise	10%
Microclimate exercise	5%
IPM exercise	10%
Light fading exercise	5%
Security exercise	5%
Storage and housing exercise	5%
Climate debate essay	10%
Events essay	5%
Quizzes	5%
Attendance and participation	20%

Suggested texts

Please do not purchase the texts before the class meets. We will be taking a somewhat different approach to the readings and not everyone will be reading the same text. Students will be asked to contribute to the reading list.

Ashley-Smith, J. (1999). *Risk assessment for object conservation*. Oxford: Butterworth-Heinemann.

Ashley-Smith, J., Burmester, A., & Eibl, M. (Eds.). (2013). *Climate for collections: Standards and uncertainties*. London: Archetype Publications, in association with Doerner Institut, Munich.

Boersma, F., Brokerhof, A., van den Berg, S., & Tegelaers, J. (2008). *Unravelling textiles: A handbook for the preservation of textile collections*. London: Archetype.
Druzik, J. R., & Michalski, S. (2012). *Guidelines for selecting solid state lighting for museums*. CCI/GCI.
Harvey, R., & Mahard, M. R. (2014). *The preservation management handbook: Archives, and museums: A 21st-century guide for libraries, archives, and museums*. Lanham, MD: Rowman & Littlefield.
Hatchfield, P. (2002). *Control of pollutants in the museum environment: Practical strategies for problem solving in design, exhibition and storage*. London: Archetype.
Miller, M. S. (2002). *Protecting museum exhibits from their environments (and vice versa)*. Seaford, DE: NoUVIR.
Padfield, T., & Borchersen, K. (Eds.). (2007). *Museum microclimates: Contributions to the Copenhagen conference 19-23 November 2007*. Copenhagen: National Museum of Denmark.
Person-Harm, A., & Cooper, J. (2014). *The care and keeping of cultural facilities: A best practice guidebook for museum facility management*. Lanham: Rowman & Littlefield.
Pinniger, D. (1990). *Pest management in museums, archives and historic houses*. London: Archetype.
Richmond, A., & Bracker, A. (Eds.). (2009). *Principles of conservation: Principles, dilemmas and uncomfortable truths*. Oxford: Butterworth-Heinemann.
Teutonico, J. M., & Matero, F. G. (Eds.). (2003). *Managing change: Sustainable approaches to the conservation of the built environment : 4th Annual US/ICOMOS International Symposium organized by US/ICOMOS, Program in Historic Preservation of the University of Pennsylvania, and the Getty Conservation Institute 6-8 April 2001, Philadelphia, Pennsylvania*. Los Angeles: Getty Conservation Institute.
Thomson, G. (1994 or later). *The museum environment*. London: Butterworth.
United States. Dept. of Energy. (2011, September). *Demonstration of LED retrofit lamps at the Jordan Schnitzer Museum of Art* (Report No. PNNL-20019) (N. Miller, Author). Richland, WA: Pacific Northwest National Laboratory.
Williams, D., & Jaggar, L. (2005). *Saving stuff: How to care for and preserve your collectibles, heirlooms, and other prize possessions*. New York: Fireside.
Williams, E. (2013). *The public face of conservation*. London: Archetype.
Winsor, P., Pinniger, D., Bacon, L., Child, B., Harris, K., Lauder, D., . . . Xavier-Rowe, A. (Eds.). (2012). *Integrated pest management for collections*. Swindon: English Heritage.

Schedule

January 22, Week 1
Introduction: Course objectives

Readings

NEDCC. (2008). *Resources: Preservation leaflets*. Retrieved January 9, 2015, from http://www.nedcc.org/resources/leaflets.list.php
Person-Harm, A., & Cooper, J. pp. 265-276.
Wilson, W. K. (1995). Environmental guidelines for the storage of paper records. In *NISO Standards*. Retrieved January 9, 2015, from http://www.niso.org/standards/resources/tr01.pdf

January 29, Week 2
Temperature and relative humidity

Readings

Boersma, F., Brokerhof, A., van den Berg, S., & Tegelaers, J. pp. 31-45.
Harvey, R., & Mahard, M. R. pp. 85-105.
Padfield, T., & Borchersen, K. pp. 11-17.
Person-Harm, A., & Cooper, J. pp. 13-42.
Thomson, G. pp. 66-127; 210-269.

February 5, Week 3
Agents of deterioration: Background and use

Readings

Canadian Conservation Institute. (n.d.). Ten agents of deterioration. Retrieved January 9, 2015from http://www.cci-icc.gc.ca/resources-ressources/agentsofdeterioration-agentsdedeterioration/index-eng.aspx
Read the following sections:
Deterioration by Light, UV and IR (Read to "Control of Light") http://www.cci-icc.gc.ca/resources-ressources/agentsofdeterioration-agentsdedeterioration/chap08-eng.aspx
Pollutants (Only need to read chart at top of page.) http://www.cci-icc.gc.ca/resources-ressources/agentsofdeterioration-agentsdedeterioration/chap07-eng.aspx
Deterioration by Incorrect Temperature, and the Most Vulnerable Collections (Read to Sources of Incorrect Temperature.) http://www.cci-icc.gc.ca/resources-ressources/agentsofdeterioration-agentsdedeterioration/chap09-eng.aspx
Deterioration by Incorrect Relative Humidity, and the Most Vulnerable Collections (Read to Sources of Incorrect Relative Humidity.) http://www.cci-icc.gc.ca/resources-ressources/agentsofdeterioration-agentsdedeterioration/chap10-eng.aspx
Person-Harm, A., & Cooper, J. pp. 1-11; 43-75.
Williams, E. pp. 149-155; 257-261.

February 12, Week 4
Risk analysis

Readings

Brokerhof, A., T. Luger, B. Ankersmit, F. Bergevoet, R. Schillemans, P. Schoutens, T. Miller, J. Kiers, G. Meuthing, and R. Waller. 2005. Risk assessment of Museum Amstelkring: application to an historic building and its collections and the consequences for preservation management. Pp. 590-596 in *Preprints of the ICOM-CC 14th Triennial Meeting, The Hague 12-16 September 2005.* International Council of Museums and James & James Publishers, London.

Ashley-Smith, J. (1999). *Risk assessment for object conservation.* Oxford: Butterworth Heinemann. pp.16-49.

Cassar, M., & Pender, R. (2005, March). The impact of climate change on cultural heritage: Evidence and response. *14th triennial meeting, The Hague: Preprints ICOM Committee for Conservation, 14*, 610-616.

Harvey, R., & Mahard, M. R. pp. 31-58.

Michalski, S. (2013). [Stuffing everything we know about mechanical properties into one collection simulation]. In J. Ashley-Smith, A. Burmester, & M. Eibl (Eds.), *Climate for collections: Standards and uncertainties 2013* (pp. 349-361). London: Archetype Publications, in association with Doerner Institut, Munich.

Padfield, T., & Borchersen, K. pp. 107-114; 115-121.

Person-Harm, A., & Cooper, J. pp. 77-125; 199-217.

Walker, A., & Foster, J. (2009, February 6). *Statistical tools for the evaluation of preservation* (Monograph). Retrieved January 9, 2015 from http://conference.ifla.org/past-wlic/2009/92-walker-en.pdf

Waller, R., and S. Michalski. 2005. A paradigm shift for preventive conservation, and a software tool to facilitate the transition. Pp. 733-738 in *Preprints of the ICOM-CC 14th Triennial Meeting, The Hague 12-16 September 2005.* International Council of Museums and James & James Publishers, London.

February 19, Week 5
Storage and housing
Pollutants and dust

Readings

Hatchfield, P. (2002). *Control of pollutants in the museum environment: Practical strategies for problem solving in design, exhibition and storage*. London: Archetype.
National Archives of Australia. (2013). About the photographic activity test. Retrieved January 9, 2015, from http://www.naa.gov.au/records-management/agency/preserve/physical-preservation/pat.aspx
Padfield, T., & Borchersen, K. pp. 63-65; 67-72; 135-144; 229-235; 237-243.

February 26, Week 6
Understanding and implementing microclimates
Outreach, Setting agendas

Readings

Padfield, T., & Borchersen, K. pp. 27-35; 191-198; 199-206; 253-260; 261-266.
Williams, E. pp. 33-36; 37-44; 121-130; 205-211; 212-221; 232-243.

March 5, Week 7
Snow Day. Was supposed to be IPM

March 12, Week 8
Guest speaker: Joe Reyes

Readings

Getty Conservation Institute, & Heritage Preservation. (1990). The conservation assessment: A tool for planning, implementing and fund-raising. In *CAP publications at your fingertips*. Retrieved January 9, 2015, from http://www.heritagepreservation.org/CAP/docs/Handbook4Assessors.pdf
Harvey, R., & Mahard, M. R. pp. 147-181; 183-222; 223-253; 255-291; 317-325; 327-341.

March 19, SPRING BREAK

March 26, Week 9

Lighting

Readings

Boersma, F., Brokerhof, A., van den Berg, S., & Tegelaers, J. pp. 47-60.

Heritage Collections Council (n.d.). Common deterioration processes. *Summary of gallery illumination: LED lighting in today's museums hosted by The Smithsonian American Art Museum on Friday, March 1st, 2013*. (n.d.). Retrieved January 9, 2015, from http://www.americanart.si.edu/conservation/program_docs/aic_summary.pdf

Padfield, T., & Borchersen, K. pp. 51-56.

April 2, Week 10
Security, transport and events
Exhibits

Readings

Boersma, F., Brokerhof, A., van den Berg, S., & Tegelaers, J. pp. 107-122.

Conservation Center for Art and Historic Artifacts. (2014.) Preservation resource materials. Retrieved January 9, 2015, from http://www.ccaha.org/publications/technical-bulletins

Harvey, R., & Mahard, M. R. pp. 133-146.

Johnson, A. P., Hannen, W. R. & Zuccari, F. (2013). Vibration control during construction projects. *Journal of the American Institute for Conservation, 52*, 30-47.

Noehles, M., & Niehus, L. (2014). Mounting works on paper with neodymium magnets. *Restaurator, 35*(3/4), 231-248. http://dx.doi.org/10.1515/res-2014-0016

Padfield, T., & Borchersen, K. pp. 99-105.

Person-Harm, A., & Cooper, J. pp. 219-247.

Williams, E. 57-65; 66-75.

April 9, Week 11
Environmental standards debate

Readings

Ashley-Smith, J., & Burmester, A. (2013). *Plus-minus debate*. Retrieved January 9, 2015, from http://www.doernerinstitut.de/downloads/Plus-Minus-Debate.pdf

Ashley-Smith, J., Burmester, A., & Eibl, M. (Eds.). (2013). *Climate for collections: Standards and uncertainties 2013*. London: Archetype Publications, in association with Doerner Institut, Munich.

Bickersteth, J. (2014). Environmental conditions for safeguarding collections: What should our set points be? *Studies in Conservation*, *59*(4), 218-224.
Bichlmair, S., Holl, K., & Kilian, R. (2012). The moving fluctuation range - a new analytical method for evaluation of climate fluctuations in historic buildings. In J. Ashley-Smith, A. Burmester, & M. Eibl (Eds.), *Climate for Collections: Standards and Uncertainties* (pp. 439-450). London: Archetype.
Bolliger, A., & Strobl, J. (2013). *Real savings discussion*. Retrieved January 9, 2015, from http://www.doernerinstitut.de/downloads/The_Real_Savings_EN.pdf
Burmester, A., & Kostowski, R. (2013). *Stability versus stress discussion*. Retrieved January 9, 2015, from http://www.doernerinstitut.de/downloads/Stability_versus_Stress.pdf
Doerner Institute. (20). Retrieved January 9, 2015, from http://www.doernerinstitut.de/en/projekte/Bizot/bizot_1.html
Image Permanence Institute. (n.d.). Sustainable preservation practices for managing storage environments. Retrieved January 9, 2015, from http://www.ipisustainability.org/workshop-presentations/
Padfield, T., & Borchersen, K. pp. 129-134; 145-155; 157-163; 213-219.
Person-Harm, A., & Cooper, J. pp. 151-197.
The National Archives. *PAS 198:2012 Specification for managing environmental conditions for cultural collections*. London: British Standards Institution.

April 16, Week 12
Defining preventive conservation

Readings

Harvey, R., & Mahard, M. R. pp. 3-13; 15-30.
Padfield, T., & Borchersen, K. pp. 123-128.

April 23, Week 13
Integrated pest management

Readings

Krug, S., & Hahn, O. (2014). Portable X-ray fluorescence analysis of pesticides in the textile collection at the Herman Historical Museum, Berlin. *Studies in Conservation*, *59*(6), 355-366.
Padfield, T., & Borchersen, K. pp. 57-60.
Pinniger, D. (1990). *Pest management in museums, archives and historic houses in museums*. London: Archetype.

Winsor, P., Pinniger, D., Bacon, L., Child, B., Harris, K., Lauder, D., . . . Xavier-Rowe, A. (Eds.). (2012). *Integrated pest management for collections*. Swindon: English Heritage.

April 30, Week 14
Mold prevention and removal
Disaster recovery

Readings (Disasters)
Will be given during class.

Readings (Mold)
Padfield, T., & Borchersen, K. pp. 185-189.
Sequeira, S. O., Cabrita, E. J., & Macedo, M. F. (2014). Fungal biodeterioration of paper: How are paper and book conservators dealing with it? An international survey. *Restaurator*, *35*(2), 181-199. http://dx.doi.org/10.1515/rest-2014-0005

May 7, Week 15
Review