INFO 5297.020 Introduction to Special Materials Preservation
Spring 2026

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Course:
This course will serve as an introduction to the processes, standards, and best practices governing special materials preservation work in a present-day *special collections* archive. It will offer students the opportunity to engage directly with the preservation process by way of assessing the preservation needs of real collection items and performing the necessary preservation treatments on-site in Special Collections' preservation studio. Throughout the semester we will examine the types of items and materials typically found in the collections of special libraries, the methods used for preserving them, and the supplies, tools, and equipment most often used in preservation work. We will consider the historical implications of legacy media formats and the manufacturing processes that went into their production and learn how a basic knowledge of these histories influences the decisions we make, the priorities we establish, and the supplies that we use. We will also review environmental considerations and housing and storage best practices.

Our primary focus will be on *special materials* such as recorded sound (grooved media and magnetic tape), moving images (film and video), historic textiles and fabrics, photographs, photographic film (negatives and slide positives), paper objects, and rare books. This is not a book binding class.

Working in the Preservation Lab, we will construct custom enclosures for collection items including custom 4-flaps, lightweight and heavy phase boxes, encapsulations, etc. We will also perform archival treatments such as mold remediation, paper mending and other general repairs, surface cleaning, humidification/flattening, and deacidification.

**Class will often be held in other laboratory facilities across campus. Please have a means of adequate transportation throughout the semester to attend these classes.*

Course Structure:
Classes will be held on-site, primarily, at the Research Collections Library (RCL 110). Class will meet in the Special Collections Preservation Lab for a lecture and discussion, followed by practical, hands-on work using the studio's tools and equipment. Topics will be presented as a series of course modules: *Paper (Unbound), Paper (Bound), Photographs, Fabrics and Textiles, Audiovisual Materials – Film, Audiovisual Materials – Magnetic Media – Videotape/Audiotape,* and *Audiovisual Materials – Grooved Media*. Students will be assigned readings relevant to each module that will be discussed during the lecture period at the beginning of class. We will spend 1 - 2 weeks on each module.

Each student will be provided with a small collection of items consisting of varying material types. Collections will be assigned during our third meeting. Throughout the semester students will plan and

implement a *preservation survey and assessment* of their collection using the Preservation Self-Assessment Program (PSAP) collection ID guide developed by the University of Illinois at Urbana-Champaign. Using data collected during the preservation survey and assessment, students will create a Preservation Plan for their assigned collections, due the final day of class, May 7th. Instructor will provide the template.

Texts:
Readings as assigned. All readings will be available online via Canvas or handed out by instructor.

Course Objectives:
By the end of the course, students will be able to:

1. **Identify the inherent preservation concerns of collection items based on their material composition, focusing specifically on how, when, and why they were made.**
2. **Assess the unique preservation needs of collection items and determine the necessary treatment(s) to effectively preserve them.**
3. **Construct custom archival enclosures for items commonly found in special collections.**
4. **Recognize the correlation between the historical aspects of media formats and the preservation priorities of an institution.**
5. **Demonstrate a thorough understanding of why we use the materials we use for permanent storage and housing.**
6. **Understand how environmental conditions play a role in the preservation of special collections.**
7. **Competently utilize the tools and equipment commonly found in preservation labs.**
8. **Discuss the differences between preservation, conservation, and restoration.**

Module topics:
Each course module will provide a detailed overview of a specific family of item types commonly found in a special collections archive. Throughout each module we will consider and discuss the common preservation issues associated with these item types, including associated materials, handling, housing and permanent storage, environmental conditions, inherent risks, deterioration characteristics, playback equipment (if needed) and treatment options. We will also touch on the historical and cultural aspects of certain collection materials and how they can inform the decisions we make in the preservation lab. Weekly lab work will coincide with the module topic being studied at the time.

Module 1: Introduction and General Concepts

1. Introduction to Preservation
2. Preservation vs Conservation vs Restoration
3. Practical Preservation
4. Timelines and historical context
5. Container vs Content
6. Concept of unique content
7. Environmental Considerations
8. Preservation Evaluation and Assessment
9. Preservation Plan
10. Preservation Digitization

Module 2: Paper (Unbound)

1. Maps, posters, prints, architectural drawings, drawings (ink), drawings (friable media), documents/records
2. Identifying immediate concerns
3. Intended Purpose
4. Surface cleaning
5. Repair
6. Deacidification
7. Mylar encapsulation
8. Humidification and flattening
9. Infestations – mold/pest
10. Buffered vs unbuffered housing
11. Permanent storage (flat or vertical)

Module 3: Paper (Bound)

1. Ancient, medieval, artist, miniature, special collections
2. Rare books vs circulating – implications of circulating materials.
3. Preservation vs conservation vs. restoration
4. Surface cleaning
5. Repairs
6. Phase boxes and clamshells
7. Mylar jackets
8. Infestations
9. Storage recommendations

Module 4: Photographs

1. Prints, cased/direct, negatives, slides, photomechanical, digital prints
2. A brief history…
3. The photographic process
4. Print types
5. Negatives vs slides
6. Indications of degradation
7. Film substrates (nitrate, acetate, polyester)
8. Surface cleaning
9. Digitization considerations
10. Storage (Mylar or paper; mounted or unmounted; vertical or flat)

Module 5: Fabrics and Textiles

1. Handling
2. Cleaning
3. Repairs
4. Infestations
5. Digitization
6. Environment (light, humidity, temperature)
7. Storage

Module 6: Audiovisual Materials – Film

1. Film (8mm, Super 8, 16mm, 35mm)
2. Analog media vs digital media
3. Film substrates (nitrate, acetate, polyester)
4. Nitrate film and spontaneous combustion
5. Acetate film and vinegar syndrome
6. Indications of deterioration
7. Sound on film
8. Implications of obsolescence and degradation of playback equipment
9. Digitization considerations
10. Housing and storage recommendations

Module 7: Audiovisual Materials – Magnetic Media – Audiotape

1. Open reel audio tape, 8-track, audiocassette, DAT, microcassette
2. A brief history…
3. Ubiquitous usage by the recording industry, as well as the consumer market
4. Implications of ubiquity and importance of identifying commercial products vs items containing unique content
4. Tape substrate (acetate, paper, PVC, polyester)
5. Indications of deterioration
6. Implications of obsolescence and degradation of playback equipment
7. Mono, stereo, multi-track
8. Tape size, width, and playback speed
9. Record protection mechanism
10. Digitization: standards and best practices
11. Housing and storage recommendations

Module 8: Audiovisual Materials – Magnetic Media – Videotape

1. Open reel, VHS, Betacam, Video8/Hi-8, U-matic
2. Relationship to both Recorded Sound and Moving Images
3. Near ubiquitous usage by the film and broadcast industries, as well as the consumer market
4. Implications of ubiquity and importance of identifying commercial products vs items containing unique content
5. Indications of deterioration
6. Implications of obsolescence and degradation of playback equipment
7. Record protection mechanism
8. Digitization: standards and best practices
9. Housing and storage recommendations

Module 9: Audiovisual Materials – Grooved Media

1. Plastic cylinder, wax cylinder, aluminum disc, lacquer disc, shellac disc, vinyl disc
2. A brief history…
3. 78s, LPs, and Eps
4. Size and speed

5. Playback equipment
6. Mono or Stereo
7. Digitization: standards and best practices
8. Housing and storage recommendations

Semester Schedule:

Week 1 (January 14): *Module 1: Introduction and General Concepts* at Wooten Hall, Rm. 314

Week 2 (January 21): Continue *Module 1: Introduction and General Concepts*

Week 3 (January 28): *Module 2: Paper (Unbound)*

Week 4 (February 4): Continue *Module 2: Paper (Unbound)*

Week 5 (February 11): *Module 3: Paper (Bound)*

Week 6 (February 18): Continue *Module 3: Paper (Bound)*

Week 7 (February 25): *Module 4: Photographs (Prints)*
Due: *Preservation Survey: Paper (Unbound) and Paper (Bound)*

Week 8 (March 4): **Texas Fashion Collection, 405 S Welch St, Denton, TX 76201**
Module 5: Clothing and Textiles

Week 9 (March 11): **No Class – Spring Break**

Week 10 (March 18): Continue *Module 4: Photographs (Negatives/Slides/Transparencies)*
Due: *Material-Type Paper*

Week 11 (March 25): *Module 6: Audiovisual Materials – Film*
Due: *Preservation Survey: Photographic & Image Material*

Week 12 (April 1): Introduction to *Audiovisual Materials – Magnetic Media*
Due*: Preservation Survey: Audiovisual Media – Film*

Week 13 (April 8): **Willis Library, 4th Floor, Special Collections AV Preservation Lab, Room 433**
Module 7: Audiovisual Materials – Magnetic Media – Audiotape

Week 14 (April 15): **Willis Library, 4th Floor, Special Collections AV Preservation Lab, Room 433**
Module 8: Audiovisual Materials – Magnetic Media – Videotape
Due: *Preservation Survey: Audiovisual Media – Audiotape*

Week 15 (April 22): **Willis Library, 4th Floor, Music Library Sound Box**
Module 9: *Grooved Media*
Due: *Preservation Survey: Audiovisual Media – Videotape*

Week 16 (April 29): *Final Exam Review – RCL Preservation Lab*

Due: *Preservation Survey: Grooved Media, Optical Media, Objects, Electronic Media, any remaining items*

May 6th: ***Final Exam***
When: 6pm-9pm
Where: RCL 110, Preservation Lab

Grades:

Class Participation: 10%
Students are expected to attend class, read assigned readings, participate in weekly discussions, and complete ***all*** work assigned in the Preservation Lab. If you are unable to complete your work during scheduled class time, you may contact the instructor to set up a time (outside of class) to visit the Preservation Lab and complete your assignment.

Preservation Survey/Preservation Plan: 50%
Students will be assigned a small collection of items on the third day of class consisting of various material types, in various states of condition. Using the Preservation Self-Assessment Program (PSAP) collection ID guide and preservation survey spreadsheet provided by instructor, students will conduct a preservation survey and assessment of their assigned collection. Based on learnings from our discussions and readings, as well as from data compiled during the preservation survey, students will create a preservation plan for their collection (preservation survey spreadsheet and plan templates provided by instructor). Survey and assessment will be completed in sections based on material-type(s) and due throughout the semester. Collection boxes returned and preservation plan due on final day of class.

Material-Type Paper: 20%
Students will choose and research a single material type commonly found in special collections holdings and write a paper detailing their findings. Paper will focus on a singular material type, not a broad media type (i.e.- nitrate film, **NOT** photography or moving images). Paper should provide a general overview of the material type, *how*, *when*, and *why* it was produced, how and when it was commonly used, and address any inherent risks or preservation concerns associated with the material type that can be attributed to methods of manufacturing or production. Please ask instructor for clarity, if necessary, when choosing a material. Paper will be approximately 500 - 600 words.

Final: 20%
Final with be a comprehensive overview of everything discussed in class. It will consist of multiple-choice questions, questions needing written answers, and examples of materials for you to evaluate, assess, and act on. It will test your knowledge of basic preservation principles but will also examine your decision-making skills and how you reach certain conclusions about the preservation needs of specific collection materials.

Final exam will be held on May 6, 2025, in the Special Collections Preservation Lab, RCL 110 from 6pm – 9pm.

Preservation Lab Attire:
Most of the work in this class will be performed in a laboratory setting. This means that laboratory attire is required. Open-toed shoes and dangling jewelry is not permitted; jewelry, in general, is not recommended. Please place long hair into a ponytail or bun, or under a cap. Please do not wear clothing that you do not want ruined. If you want to prevent glue or other materials from getting onto your clothing, please bring an apron. Long sleeves should either be buttoned at the cuff or rolled up to the elbow.

Grading criteria:
The UNT scale for grading is:
A = 90-100
B = 80-89
C = 70-79
D = 60-69
F = 59 and below

Assignments will be graded in terms of completeness, accuracy, and appropriateness. This is a graduate level course, and students are expected to demonstrate the ability to write properly.

Late assignment policy:
Work that is turned in late will receive a deduction of 5 points (out of 100) **per day**.
Work turned in for the Preservation Survey/Preservation Plan will receive a deduction of 5% **per day**.

Attendance Policy:
Please see UNT Policy 06.039 regarding student attendance and authorized absences:
https://policy.unt.edu/policy/06-039

Academic Integrity Standards and Consequences
According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University. [Insert specific sanction or academic penalty for specific academic integrity violation].

ADA Accommodation Statement
UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one's specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the ODA website at disability.unt.edu.

Course Safety Procedures (for Laboratory Courses)
While working in laboratory sessions, students enrolled in [insert class name] are required to follow proper safety procedures and guidelines in all activities requiring lifting, climbing, walking on slippery surfaces, using equipment and tools, handling chemical solutions and hot and cold products. Students

should be aware that UNT is not liable for injuries incurred while students are participating in class activities. All students are encouraged to secure adequate insurance coverage in the event of accidental injury. Students who do not have insurance coverage should consider obtaining Student Health Insurance. Brochures for student insurance are available in the UNT Student Health and Wellness Center. Students who are injured during class activities may seek medical attention at the Student Health and Wellness Center at rates that are reduced compared to other medical facilities. If students have an Page 2 of 4 insurance plan other than Student Health Insurance at UNT, they should be sure that the plan covers treatment at this facility. If students choose not to go to the UNT Student Health and Wellness Center, they may be transported to an emergency room at a local hospital. Students are responsible for expenses incurred there.

Emergency Notification & Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to the UNT Learning Management System (LMS) for contingency plans for covering course materials.