

# CINE-GT 1807 Digital Preservation

## Class Logistics

721 Broadway, Room 646  
Thursdays 6:00-10:00  
Class Dates: September 7 - December 14

## Instructor Information

Nick Krabbenhoeft  
Contact: [nk3362@nyu.edu](mailto:nk3362@nyu.edu)  
Office hours: Thursdays 5:30-6:00, or virtually by appointment (contact by email to schedule)

## Course Description

This class will address the use of digital files and infrastructure as preservation media, and will investigate current theories and practices for the conservation and preservation of both digitized and born digital materials. Students will learn the details of the functions of digital preservation environments and repositories, and what infrastructure, policies, and procedures need to be a part of a repository in order to make it preservation compliant. Students will gain practical skills with identification, analysis, handling, and risk assessment for works as a whole, their component parts, and associated software and metadata. Initiatives and R&D efforts by national, international, regional, and cooperative organizations will be explored. Digital literacy will be emphasized, and through a combination of lectures, discussion, and hands-on activities and lab exercises, students will develop an increased understanding of digital technologies, ecosystems, and requirements.

## Learning Objectives

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

- Identify the foundations for standards in digital collection management
- Select appropriate tools for different types of digital objects, digitized and born-digital
- Adapt field-level recommendations towards the specific needs of a local workflow
- Diagnose issues in digital collection management and explore potential solutions

## Course Texts

Readings made available online

## Attendance

Students should plan to attend every class. If an absence is unavoidable, inform the instructor as soon as possible and discuss how to handle the missed material.

## Course Rhythm

Each week consists of the following components:

- quiz on topics from the prior week
- resources for discussion
- lecture
- interactive lab and/or demonstration
- discussion

## Technology Expectations

Students should bring a Windows 10, Mac (macOS 10.11+), or Linux computer with at least 5 GB of free space. If students do not have access to a computer, they should work with the professor and Dylan's Lorenz (Dylan.Lorenz@nyu.edu) to find alternatives using NYU resources.

## Class Topics

### September 7 - Foundations: Frameworks for Digital Preservation

#### Readings for Discussion

None

#### Lab Activity

Command-line refresher and initial tool installation

### September 14 - Foundations: What is a file?

#### Readings for Discussion

- Owens, T. (2012). [The is of the Digital Object and the is of the Artifact | The Signal: Digital Preservation](#)
- Reimer, J. (2008) [From BFS to ZFS](#)
- Mason, W. (2019) [What is a file system?](#)

- Peter B. Hex Editing for Archivists. [Intro](#) and [How to Read and Edit](#)

### **Lab Activity**

Understanding disk types and moving files

## **September 21 - Core Processes: Receiving files**

### **Readings for Discussion**

- National Digital Stewardship Alliance. (2014). [What is Fixity, and When Should I be Checking It?](#)
- National Digital Stewardship Alliance. (2017). [2017 Fixity Survey Report](#).
- Rice, D. (2012). [Reconsidering the Checksum for Audiovisual Preservation](#)

### **Lab Activity**

Validating and corrupting fixity in bags and sidecars

## **September 28 - Core Processes: Quality Control**

### **Readings for Discussion**

- Havemeyer-King, G. (2018). [Spotlight on Audio and Moving Image Quality Control](#)
- Shehata, O. (2019) [Unraveling the JPEG](#)

### **Lab Activity**

Flipping text encodings and generating mediainfo reports

## **October 5 - Core Processes: Processing**

### **Readings for Discussion**

- Digital Preservation Coalition. [File formats and standards](#).
- Ryan, H. (2014) [Occam's Razor and File Format Endangerment Factors](#).

### **Lab Activity**

Generating file format reports and parsing file format signatures

### **Project Proposal Due**

## **October 12 - Core Processes: Packaging**

### **Readings for Discussion**

OAIS. [Information Package Definition](#).

OAIS. [Information Model](#). (4.2.1.4, 4.2.2.1, 4.2.2.2)

## October 19 - Case Study: Digitization

### Readings for Discussion

- Berry, D. (2018) [Digitizing and Enhancing Description Across Collections to Make African American Materials More Discoverable on Umbra Search African American History](#).
- Bubestinger, P., Lewetz, H., and Jak, M. (2015) [Comparing video codecs and containers for archives](#).

### Lab Activity

Transcoding legacy digitization projects

## October 26 - Case Study: Born-Digital AV

Guest Lecturer: Drey Jonathan

### Readings for Discussion

- Kim, J; Fraimow, R; and Titkemeyer, E. (2019) [Never Best Practices: Born-Digital Audiovisual Preservation](#)
- WITNESS (2019) [Video as Evidence Field Guide](#)  
(<https://www.mediafire.com/download/xg9c0c0ayjql5ow/>)

### Lab Activity

Transferring files from cloud services

## November 2 - Case Study: Web Archives

### Readings for Discussion

- Gallon, K. Sutherland, T. and Brown-Hinds, P. (2021). [Contemporary Issues in Documenting Black Lives](#).
- Schostag, S. (2020) [The Danish Coronavirus web collection](#).

### Lab Activity

Working with APIs and creating WARCs

## November 9 - Case Study: Digital Forensics

Guest Lecturer: Drey Jonathan

### Readings for Discussion

- Lassere, M. and Whyte, J. (2020). [Balancing Care and Authenticity in Digital Collections: A Radical Empathy Approach to Working with Disk Images.](#)
- Arroyo-Ramírez, E. (2016). [Invisible Defaults and Perceived Limitations: Processing the Juan Gelman Files](#)

### Lab Activity

TBD

## November 16 - No class (AMIA)

## November 23 - No class (Holiday)

## November 30 - Long-Term: Repository/DAM/etc and Ingest

### Readings for Discussion

- Hardesty, J and Homenda, N. (2019) The Ecosystem of Repository Migration. <https://www.mdpi.com/2304-6775/7/1/16/pdf>
- Corbett, H.; Gaphery, J; Work, L; and Byrd, J. Choosing a Repository Platform: Open Source vs. Hosted Solutions, [https://scholarscompass.vcu.edu/cgi/viewcontent.cgi?article=1036&context=libraries\\_pubs](https://scholarscompass.vcu.edu/cgi/viewcontent.cgi?article=1036&context=libraries_pubs)
- Geothals, A. (2017). *Who does what? Defining the roles and responsibilities for digital preservation.* <https://blogs.loc.gov/thesignal/2017/04/who-does-what-defining-the-roles-responsibilities-for-digital-preservation/>

### Lab Activity

Working within repository sandboxes

### Student Presentations

## December 7 - Long-Term: Storage

### Readings for Discussion

- Pendergrass, K., Sampson, W., Walsh, T., and Alagna, L. (2019). [Toward Environmentally Sustainable Digital Preservation](#)

- O'Meara, E and Stratton, K (2016). Digital Preservation Storage.  
[https://www2.archivists.org/sites/all/files/Module\\_13\\_CaseStudies\\_OMeara-Stratton.pdf](https://www2.archivists.org/sites/all/files/Module_13_CaseStudies_OMeara-Stratton.pdf)

### **Lab Activity**

Analyzing storage choice and budgets

### **Student Presentations**

## **December 14 - Policies and Audits / AI and Blockchains**

### **Lab Activity**

Policy review

## **December 18 - Friday, Dec 22**

**Final projects due**

## **Assignments**

Quizzes (30 points) - Multiple-choice reviews of materials and tools covered in the previous week. Due before class and then reviewed in class. Quizzes are graded on the basis of completion and not correctness.

Due Date: Weekly

Discussion (30 point) - Students are expected to lead discussion once during the semester. Detailed rubric on discussion lead expectations are provided on the course website.

Due Date: Once per semester

Semester Project (40 points) - Students will interrogate an existing recommended practice or common software and present the results of their analysis to the class. Detailed rubric on project expectations are provided on the course website.

Proposal Due Date: October 5

Presentations: November 30 and December 7

Deliverable Due Date: December 18-22

## **Grading**

Grades are calculated by adding together the total received points from each assignment.

- A: 90-100
- B: 80-89
- C: 70-79
- D: 60-69

Incompletes are available but must be discussed with the instructor.

## Digital Archive of Student Work

All student projects are to be collected and made accessible on the Student Work page of the MIAP website (<https://tisch.nyu.edu/cinema-studies/miap/student-work>). Certain types of assignments will be password-protected and made accessible only to MIAP students and faculty. Students are required to submit all of their work for each class to their professor in a digital format (.pdf is encouraged for cross-platform compatibility) via email or other available digital medium.

As a primary goal of NYU's MIAP Program is to be useful to the archival field, the default status of student works will be public (with the exception of internship reports and thesis proposals). Students, in consultation with their instructor, can make a case for why a particular assignment should be restricted to internal use. Proprietary information, confidential information, or copyright issues may lead to this decision, but not a general unwillingness to make work public.

## Formatting

Chicago is the preferred citation format, although students may use the style guide of their choice as long as they remain consistent in its usage..

When students submit digital files of their work, the file names should conform to MIAP's standard format, with f used to indicate fall semester and s used to indicate spring semester: YYsemester\_course number\_author's last name\_a[assignment#].file extension. Here is an example of a student with the surname Smith, submitting the first assignment in the fall 2021 course CINE-GT 1800:  
21f\_1800\_Smith\_a1.pdf.

For multiple authors, the two initials of each author will be used, separated from each other by underscores. An underscore and the assignment number will follow this. Assignment numbers are determined by the order in which the assignments are given. They begin with an "a," followed by a number between one and ten. For assignments with multiple files, a letter can be added after the number. Thus, one could have "a1b," meaning that this is the second of multiple files from one student for one particular assignment. In the case of a restricted file that should not be made public, the student should add an "\_x" to the end of the file name indicating the file's restricted status:  
21f\_1800\_Smith\_a1\_x.pdf. Otherwise, permission shall be implicitly granted for the student's work to be posted on the MIAP website.

# Important Policies and Resources

## Tisch Policy on Academic Integrity

The core of the educational experience at the Tisch School of the Arts is the creation of original work by students for the critical review of faculty members. Any attempt to evade that essential transaction through plagiarism or cheating is educationally self-defeating and a grave violation of Tisch's community standards. Plagiarism is presenting someone else's original work as if it were your own; cheating is an attempt to deceive a faculty member into believing that your mastery of a subject or discipline is greater than it really is. Penalties for violations of Tisch's Academic Integrity Policy may range from being required to redo an assignment to dismissal from the School. For more information on the policy--including academic integrity resources, investigation procedures, and penalties--please refer to the [Policies and Procedures Handbook](#) on the website of the Tisch Office of Student Affairs.

## Health & Wellness Resources

Your health and safety are a priority at NYU. If you experience any health or mental health issues during this course, we encourage you to utilize the support services of the 24/7 NYU Wellness Exchange 212-443-9999. Also, all students who may require an academic accommodation due to a qualified disability, physical or mental, please register with the Moses Center 212-998-4980. Please let your instructor know if you need help connecting to these resources. Students may also contact MIAP Director Juana Suárez ([juana@nyu.edu](mailto:juana@nyu.edu)) and/or Academic Program Manager, Jess Cayer ([jess.cayer@nyu.edu](mailto:jess.cayer@nyu.edu)) for help connecting to resources.

## Sexual Misconduct, Relationship Violence, and Stalking Policy & Reporting Procedures

NYU seeks to maintain a safe learning, living, and working environment. To that end, sexual misconduct, including sexual or gender-based harassment, sexual assault, and sexual exploitation, are prohibited. Relationship violence, stalking, and retaliation against an individual for making a good faith report of sexual misconduct are also prohibited. These prohibited forms of conduct are emotionally and physically traumatic and a violation of one's rights. They are unlawful, undermine the character and purpose of NYU, and will not be tolerated. A student or employee determined by NYU to have committed an act of prohibited conduct is subject to disciplinary action, up to and including separation from NYU. Students are encouraged to consult the online [Sexual Misconduct, Relationship Violence, and Stalking Resource Guide for Students](#) for detailed information about on-campus and community support services, resources, and reporting procedures. Students are also welcome to report any concerns to MIAP Director Juana Suárez ([juana@nyu.edu](mailto:juana@nyu.edu)) and/or Academic Program Manager, Jess Cayer ([jess.cayer@nyu.edu](mailto:jess.cayer@nyu.edu)).



## **NYU Title IX Policy**

Tisch School of the Arts is dedicated to providing its students with a learning environment that is rigorous, respectful, supportive and nurturing so that they can engage in the free exchange of ideas and commit themselves fully to the study of their discipline. To that end Tisch is committed to enforcing University policies prohibiting all forms of sexual misconduct as well as discrimination on the basis of sex and gender. Detailed information regarding these policies and the resources that are available to students through the Title IX office can be found by using [this link](#).

## **Non-Discrimination and Anti-Harassment Policy & Reporting Procedures**

NYU is committed to equal treatment and opportunity for its students and to maintaining an environment that is free of bias, prejudice, discrimination, and harassment. Prohibited discrimination includes adverse treatment of any student based on race, gender and/or gender identity or expression, color, religion, age, national origin, ethnicity, disability, veteran or military status, sexual orientation, marital status, or citizenship status, rather than on the basis of his/her individual merit. Prohibited harassment is unwelcome verbal or physical conduct based on race, gender and/or gender identity or expression, color, religion, age, national origin, ethnicity, disability, veteran or military status, sexual orientation, marital status, or citizenship status. Prohibited discrimination and harassment undermine the character and purpose of NYU and may violate the law. They will not be tolerated. NYU strongly encourages members of the University Community who have been victims of prohibited discrimination or prohibited harassment to report the conduct. MIAP students may make such reports to MIAP Director Juana Suárez ([juana@nyu.edu](mailto:juana@nyu.edu)) and/or Academic Program Manager, Jess Cayer ([jess.cayer@nyu.edu](mailto:jess.cayer@nyu.edu)), or directly to Marc Wais, Senior Vice President for Student Affairs. Students should refer to the University's [Non-Discrimination and Anti-Harassment Policy and Complaint Procedures](#) for detailed information about on-campus and community support services, resources, and reporting procedures.

## **NYU Guidelines for Compliance with the Family Educational Rights and Privacy Act (FERPA)**

The Family Educational Rights and Privacy Act of 1974 (FERPA) was enacted to protect the privacy of students' education records, to establish the rights of students to inspect and review their education records, and to provide students with an opportunity to have inaccurate or misleading information in their education records corrected. In general, personally identifiable information from a student's education records, including grades, may not be shared without a student's written consent. However, such consent is not needed for disclosure of such information between school officials with legitimate educational interests, which includes any University employee acting within the scope of their University employment. See [here](#) for full policy guidelines.

## **NYU Student Religious Observance Policy**

See [here](#) for the University Calendar Policy on Religious Holidays.

## **NYU Academic Support Services**

NYU offers a wide range of academic support services to help students with research, writing, study skills, learning disability accommodation, and more. Here is a brief summary:

### **NYU Libraries**

Main Site: [library.nyu.edu](http://library.nyu.edu); Ask A Librarian: [library.nyu.edu/ask](http://library.nyu.edu/ask)

70 Washington Square S, New York, NY 10012

Staff at NYU Libraries has prepared a guide (<http://guides.nyu.edu/c.php?g=276579&p=1844806>) covering services and resources of particular relevance to graduate students. These include research services and guides by topic area, subject specialists, library classes, individual consultations, data services, and more. There's also a range of study spaces, collaborative work spaces, and media rooms at Bobst, the library's main branch.

### **The Writing Center**

[nyu.mywconline.com](http://nyu.mywconline.com)

411 Lafayette, 4th Floor, 212-998-8860, [writingcenter@nyu.edu](mailto:writingcenter@nyu.edu)

The Writing Center is open to all NYU students. There, students can meet with a faculty writing consultant or a senior peer tutor at any stage of the writing process, about any piece of writing (except exams). Appointments can be scheduled online. Students for whom English is a second language can get additional help with their writing through a monthly workshop series scheduled by the Writing Center ([cas.nyu.edu/content/nyu-as/cas/ewp/writing-resources/rise-workshops.html](http://cas.nyu.edu/content/nyu-as/cas/ewp/writing-resources/rise-workshops.html)).

### **The University Learning Center (ULC)**

[nyu.edu/ulc](http://nyu.edu/ulc); Academic Resource Center (18 Washington Pl, 212-998-8085) or University Hall (110 East 14th St, 212-998-9047)

### **Moses Center for Student Accessibility (CSA)**

<https://www.nyu.edu/students/communities-and-groups/student-accessibility.html>

726 Broadway, 3rd Floor, 212-998-4980, [mosescsd@nyu.edu](mailto:mosescsd@nyu.edu)

New York University is committed to providing equal educational opportunity and participation for all students. The Moses Center for Student Accessibility (CSA) works with NYU students to determine and implement appropriate and reasonable accommodations as well as connect to available programs and resources to support equal access to a world-class education. CSA provides services for undergraduate and graduate students (and other students enrolled in an NYU course) with hearing and visual, mobility, learning and attention, chronic illness, psychological and temporary needs. Learn more about CSA services at [nyu.edu/csa](http://nyu.edu/csa).

## **MIAP Resources for Current Students**

More resources for current MIAP students can be found here:

<https://tisch.nyu.edu/cinema-studies/miap/current-students> including the Program Contacts, links to the NYU MIAP Student Handbook, Academic Policies, Important Dates, and additional information for current MIAP students.