

SI 699 Section 005: Digital Curation Mastery Course

University of Michigan School of Information, Winter 2019

Meets: Wednesday 8:30 - 11:30 am, 1265 North Quad

Instructor: Rebecca Frank (pronoun: she/her)

Email: frankrd [at] umich [dot] edu

Office Hours:

- in person: Wednesday 11:30-12:30, 1243 North Quad
- virtual: Thursday 3-4 via Canvas Chat
- and by appointment

Syllabus subject to change. Most current version always available on Canvas.



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Course Overview

This is a mastery course, i.e. an advanced one-semester course that requires students to demonstrate command of the key methods, theories, approaches, and capabilities that they have acquired in their education and training at UMSI so far. Unlike other courses with significant faculty-led structure and scaffolding, mastery courses require you to demonstrate initiative and show that you can critically engage with a digital curation problem, and design and implement a solution to that problem. I see my role as guiding you through this process. The goal is not to teach you new technical skills or introduce more theory, but rather help you think out of the box, think beyond familiar and comfortable frames, and engage with digital curation in an ethical and responsible manner.

This mastery course is designed for students to demonstrate their knowledge and skills in digital curation through completion of a client-based project with a specific outcome. Working in small teams, students will work with a client on a digital curation problem, such as:

- data rescue & digital forensics
- assessing and improving metadata capture for a web archive
- modeling information packages for a new collection of digital content
- analyzing and improving an existing collection
- designing and implementing new systems/tools for access to a digital collection

Teams will be assigned a project and a client during the first few weeks of class. Projects will be assigned based on a combination of student interests, prior experience, client needs, and the availability of projects.

This course will emphasize the importance of identifying, developing, testing, and evaluating multiple solutions to a digital curation problem. Many of the interim deliverables have been designed with the goal of encouraging students to explore and surface many ways of solving a problem in order to select the best from among them.

Digital curation is a collaborative field that requires participation and buy-in from many different stakeholders. Being able to identify the best idea and communicate to others why they should pursue it will be an important asset for you as an information professional and will impact your ability to successfully carry out projects, and/or implement systems and services.

Learning Objectives

This course will draw on existing knowledge and skills (including the ability to search for and evaluate existing policies, practices, and tools) that may be relevant to the project.

Students must demonstrate the following competencies to successfully complete this course:

1. Identify and articulate digital curation problems.
2. Assess the current state of digital content/collections.
3. Formulate and test multiple solutions to a single digital curation problem.
4. Evaluate those solutions to determine which is the most appropriate based on a combination of factors, including but not limited to: the needs of the client, accepted best practices, legal and ethical requirements, and technical and/or financial considerations.
5. Implement the selected digital curation solution/strategy on all or part of a digital collection.
6. Communicate effectively and professionally with a client/stakeholder in a way that makes your work replicable and/or allows them to implement your recommendations.
7. Understand how to find appropriate tools and resources from a broad range of sources to carry out the work of digital curation.

Course Prerequisites

- **SI 501: Contextual Inquiry and Consulting Foundations**
 - (or prior experience with client-focused project management)

- **SI 506** Programming 1 & **SI 507** Intermediate Programming
 - (or demonstration of the ability to write simple programs and manipulate data)
- **SI 622**: Needs Assessment and Usability Evaluation
- **SI 623**: Research Methods of Information Professionals
 - (or prior coursework in statistics, research methods, or demonstrated research experience)
- **SI 625**: Digital Preservation

Students lacking these formal requirements should contact the Office of Student Affairs for permission to enroll based on demonstration of required competencies which may have been achieved through some combination of UMSI coursework, appropriate coursework prior to matriculating at UMSI, internships, documentable work experiences, or other structured learning. It is my expectation that all students in this course will have acquired the knowledge and skills that are taught in these prerequisites, even if you have received a waiver for the course.

Requirements & Assignments

Assignments

Assignment	Due Date	Points
Participation	ongoing	10
PEERRS Certification	1/14	n/a
Problem Statement	1/25	5
Project Timeline & Plan of Work	2/1	15
Midterm Status Report (presentation)	2/27	30
Final Report: Poster Presentation & Project Journal	4/17	40
	TOTAL	100

(Note: for detailed descriptions of each assignment, please refer to the course site in Canvas.)

Participation

Includes class attendance and preparation as well as participation in class discussions and resource sharing. The work of digital curation is collaborative and as such, it is my expectation in this course that in addition to working together within your teams, students will support one another by sharing information and resources throughout the semester. You can do this through

in-class discussions, as well as by sharing information/articles/links/etc. via the course Canvas site.

PEERRS: Program for Education and Evaluation in Responsible Research and Scholarship

Before beginning any of the projects for this course, all students must complete the following PEERRS modules: Research Practice Foundations, Human Subjects - Social & Behavioral, and Authorship. Information about PEERRS, including links to the modules, can be found here:

<http://my.research.umich.edu/peerrs/>

Problem Statement

Each team will write a 250-word abstract briefly describing and situating the digital curation problem that they will be assessing & solving this semester.

Project Timeline & Plan of Work

After describing the digital curation problem, each team will create a project timeline and a detailed plan of work. This document will lay out the steps that students intend to take throughout the semester and should include major course deliverables as well as any client-specific deadlines.

Midterm Status Report: Slide Deck & Presentation

The midterm status report will consist of a 10-minute presentation, followed by 3-5 minutes of Q&A, that should include: background information about the problem, a description of 3 different options for addressing the problem, results of pilot tests of each of the 3 options, challenges/problems encountered, and next steps.

Final Report: Poster Presentation & Project Journal

The final report will consist of a poster and 15-minute presentation describing each team's work over the course of the semester. Teams will also hand in a project journal. Journal content will vary by team and project but should include the following elements: a record of client meetings, information about any other experts consulted, information sources consulted, resources used, interesting approaches that you considered, and lessons learned.

Note: Your clients will be completing a survey about their experience over the course of the semester, and their feedback will also be taken into account in the grading of your final project.

Technology

Students are encouraged to bring personal computing devices to class and to use them actively as learning tools. Every class session will require the use of a personal computing device for work on your projects.

General Course Policies

Email Policy & Office Hours

I will try to answer emails within 48 hours of receiving them; however, if you have extensive questions about an assignment, please make an appointment to meet. If scheduled office hours don't work, I am also available by appointment. I cannot guarantee a prompt response to last minute, just-before-the-deadline emails about assignments, so try to work ahead. Please be sure to begin the subject line of your emails to me with "SI 699" to ensure that it isn't filtered out of my inbox.

While I am happy to answer questions about assignments and look over small sections of your work, I cannot look over complete drafts of assignments. If you need additional assistance with your writing, I recommend the [Sweetland Center for Writing](#), which is located at 1301 North Quad.

Grading Criteria and Late Assignment Policies

I use a point-based grading system with no curving. I will use the following scheme for assigning final grades: A = 93-100, A- = 90-92; B+ = 87-89, B = 83-86, B- = 80-82; C+ = 77-79, C = 73-76, C- = 70-72, D+ = 67-69, D = 63-67, D- = 60-62; F = <60. If, at the end of the semester, you are within 0.5 points of a higher letter grade, I will bump you up to the higher grade.

All assignments are to be completed by the due date. Exceptions will be granted with the permission of the instructor in advance of the due date for the assignment. Assignments submitted late without such permission will be downgraded 5% points each day the assignment is turned in past the due date, including weekends. An assignment is one day late when the time it is due is passed, and it continues to be one day late until 24 hours later.

The goal of this course is to carry out a digital curation project over the course of the semester and each assignment/deliverable is designed to help move your projects forward. To that end, I will use grading to provide formative feedback that helps to improve your work rather than summative assessments that just tell you how you did.

Academic Integrity

Unless otherwise specified in an assignment all submitted work must be your own, original work. Any excerpts, statements, or phrases from the work of others must be clearly identified as a quotation, and a proper citation provided. Any violation of the School's policy on Academic and Professional Integrity (stated in the Master's and Doctoral Student Handbooks) will result in serious penalties, which might range from failing an assignment, to failing a course, to being expelled from the program. Violations of academic and professional integrity will be reported to UMSI Student Affairs. Consequences impacting assignment or course grades are determined by the faculty instructor; additional sanctions may be imposed by the Assistant Dean for Academic and Student Affairs.

Collaboration

UMSI strongly encourages collaboration while working on some assignments, such as homework problems, weekly assignments, in-class activities, and interpreting reading assignments as a general practice. Active learning is effective. Collaboration with other students in the course will be especially valuable in summarizing the reading materials and picking out the key concepts. You must, however, write your homework submission on your own, in your own words, before turning it in. If you worked with someone on the homework before writing it, you must list any and all collaborators on your written submission. Each course and each instructor may place restrictions on collaboration for any or all assignments. Read the instructions carefully and request clarification about collaboration when in doubt. Collaboration is almost always forbidden for take-home and in-class exams.

Attendance

Class attendance and participation are essential components of this course. As such, I expect everyone to come to class having read the required material, prepared to critically engage the concepts and participate in activities. Students can miss one class without penalty; however, please contact me ahead of time if you need to miss more than that. If you miss more than three classes, I reserve the right to take 5% off of your final course grade per absence.

Students who expect to miss classes as a consequence of their religious observance will not be penalized for their absence and shall be provided with a reasonable alternative opportunity to complete any work missed. The complete University of Michigan policy can be found here: [U-M Guidance to Students Regarding Conflicts Between the Academic and Religious Calendars](#).

If you plan to miss class during the semester for religious observance, please notify the instructor as early in the semester as possible so that accommodations can be made to complete any work that you will miss.

Code of Conduct

I consider this classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class.

Preferred Name/Pronoun Policy

I will gladly honor your request to address you by the name and gender pronoun of your choosing. Please advise me of your preference early in the semester so that I may make appropriate changes to my records. If you would like to do so, instructions for designating your preferred pronoun in Wolverine Access can be found here:

https://csprod.dsc.umich.edu/html/doc/eng/dftie/lsaa/htm/cc_ss_genderid.html.

Accommodations for Students with Disabilities

If you think you need an accommodation for a disability, please let me know at your earliest convenience. Some aspects of this course, the assignments, the in-class activities, and the way we teach may be modified to facilitate your participation and progress. As soon as you make me aware of your needs, we can work with the Office of Services for Students with Disabilities (SSD) to help us determine appropriate accommodations. SSD (734-763-3000; ssd.umich.edu/) typically recommends accommodations through a Verified Individualized Services and Accommodations (VISA) form. I will treat any information that you provide in as confidential a manner as possible.

Student Mental Health and Wellbeing

The University of Michigan is committed to advancing the mental health and wellbeing of its students, while acknowledging that a variety of issues, such as strained relationships, increased anxiety, alcohol/drug problems, and depression, directly impacts students' academic performance.

If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, contact Counseling and Psychological Services (CAPS) at (734) 764-8312 and <https://caps.umich.edu/> during and after hours, on weekends and holidays or through its counselors physically located in schools on both North and Central Campus. You may also consult University Health Service (UHS) at (732) 764-8320 and <https://www.uhs.umich.edu/mentalhealthsvcs>, or for alcohol or drug concerns, see www.uhs.umich.edu/aodresources.

For a more comprehensive listing of the broad range of mental health services available on campus, please visit: <http://umich.edu/~mhealth/>

Course Outline

Session	Date	Topic
1	1/9	Introduction
2	1/16	Problem Assessment & Project Scoping
3	1/23	Articulating Needs & Requirements
4	1/30	Assessing Current Collections/Content/etc.
5	2/6	Digital Curation Workflows (guest speaker)
6	2/13	Researching & Testing Potential Solutions
7	2/20	Skill Session: OpenRefine (guest speaker: Matt Carruthers, MLibrary)
8	2/27	Midterm Status Report: Presentations
n/a	3/6	Spring Break
9	3/13	Lab/Work Time
10	3/20	Digital Curation Workflows (Revisited) (guest speaker: Lance Stuchell, MLibrary)
11	3/27	Skill Session: Implementation & Documentation of Digital Curation Workflows
12	4/3	Sustainability
13	4/10	Lab/Work Time
14	4/17	Final Presentations

Session 1: Introduction

Required Reading

Kolko, J. (2015, September 1). Design Thinking Comes of Age. Harvard Business Review, (September 2015). Retrieved from <https://hbr.org/2015/09/design-thinking-comes-of-age>

Yakel, E. (2007). Digital Curation. *OCLC Systems & Services: International Digital Library Perspectives*, 23(4), 335–340. <https://doi.org/10.1108/10650750710831466>

Session 2: Problem Assessment & Project Scoping

Required Reading

Digital Curation Centre (DCC) Lifecycle Model:
<http://www.dcc.ac.uk/resources/curation-lifecycle-model>

Whitaker, C. (2015, August 17). Collaborative Project Management. Retrieved January 5, 2019, from <http://www.smartchicagocollaborative.org/collaborative-project-management/>

Zarndt, F. (2011). Project Management 101: Plan Well, Communicate a Lot, and Don't Forget Acceptance Criteria! *OCLC Systems & Services: International Digital Library Perspectives*, 27(3), 170–174. <https://doi.org/10.1108/10650751111164542>

Session 3: Articulating Needs & Requirements

Required Reading

Johnston, L. R. (2017). Step 1.0: Receive the Data. In *Curating Research Data: A Handbook of Current Practice* (Vol. 2, pp. 11–54). Chicago, IL: Association of College and Research Libraries Press.

Owens, T. (2018). Chapter 2: Understanding Digital Objects. In *The Theory and Craft of Digital Preservation* (pp. 34–53). Baltimore: Johns Hopkins University Press.

Read one article that is relevant to your project - it can be about the organization, the technology, etc. Be prepared to talk about this article in class.

Session 4: Assessing Current Collections/Content/etc

Required Reading

Owens, T. (2018). Chapter 7: Arranging and Describing Digital Objects. In *The Theory and Craft of Digital Preservation* (pp. 128–158). Baltimore: Johns Hopkins University Press.

Phillips, M., Tarver, H., & Frakes, S. (2014). Implementing a Collaborative Workflow for Metadata Analysis, Quality Improvement, and Mapping. *The Code4Lib Journal*, (23). Retrieved from <https://journal.code4lib.org/articles/9199>

Additional Resources

Langley, S. (2019). Chapter 7: Digital Preservation Should Be More Holistic: A Digital Stewardship Approach. In J. Myntti & J. Zoom (Eds.), *Digital Preservation in Libraries: Preparing for a Sustainable Future* (An ALCTS Monograph) (pp. 93–128). Chicago, IL: ALA Editions.
<https://doi.org/10.17863/CAM.34317>

Session 5: Digital Curation Workflows

Required Reading

Stuchell, L. (2017, February 1). A Born-Digital Laboratory is Born. Retrieved January 22, 2019, from <https://www.lib.umich.edu/blogs/bits-and-pieces/born-digital-laboratory-born>

Stuchell, L. (2018, June 8). Digital Preservation Lab 2.0 | U-M Library. Retrieved January 22, 2019, from <https://www.lib.umich.edu/blogs/bits-and-pieces/digital-preservation-lab-20>

Prael, A. S. (2018). Centralized Accessioning Support for Born Digital Archives. *The Code4Lib Journal*, (40). Retrieved from <https://journal.code4lib.org/articles/13494>

Additional Resources

Kirschenbaum, M. G., Ovenden, R., Redwine, G., & Donahue, R. (2010). *Digital Forensics and Born-Digital Content in Cultural Heritage Collections*. Washington, D.C: Council on Library and Information Resources. Retrieved from <https://www.clir.org/pubs/reports/pub149/>

John, J. L. (2012). *Digital Forensics and Preservation*. Digital Preservation Coalition.
<https://doi.org/10.7207/twr12-03>

Session 6: Researching & Testing Potential Solutions

Required Reading

Prater, S. (2018). How to Talk to IT about Digital Preservation. *Journal of Archival Organization*, 1–12. <https://doi.org/10.1080/15332748.2018.1528827>

Bring 2-3 resources that you have found over the past few weeks that are relevant to your project, and be ready to talk about them in class.

Session 7: Skill Session: OpenRefine

Before Class

Install OpenRefine:

<http://openrefine.org/download.html> or <https://github.com/OpenRefine/OpenRefine>

Required Reading

Explore OpenRefine & Watch the 3 videos on this page: <http://openrefine.org/>

Explore & familiarize yourself with the OpenRefine documentation:

<http://openrefine.org/documentation.html>

Session 8: Midterm Status Report: Presentation

Required Reading

none

SPRING BREAK

Session 9: Lab/Work Day

Required Readings

None

Additional Resources

Banerjee, K., & Anderson, M. (2013). Batch Metadata Assignment to Archival Photograph Collections Using Facial Recognition Software. The Code4Lib Journal, (21). Retrieved from <https://journal.code4lib.org/articles/8486>

Harper, C. (2018). Machine Learning and the Library or: How I Learned to Stop Worrying and Love My Robot Overlords. The Code4Lib Journal, (41). Retrieved from <https://journal.code4lib.org/articles/13671>

Session 10: Digital Curation Workflows (Revisited)

Required Reading

Stuchell, L. (2017, February 1). A Born-Digital Laboratory is Born. Retrieved January 22, 2019, from <https://www.lib.umich.edu/blogs/bits-and-pieces/born-digital-laboratory-born>

Stuchell, L. (2018, June 8). Digital Preservation Lab 2.0 | U-M Library. Retrieved January 22, 2019, from <https://www.lib.umich.edu/blogs/bits-and-pieces/digital-preservation-lab-20>

Additional Resources

Hankinson, A., Warner, S., & Wilcox, D. (2018). The Oxford Common File Layout. In iPres 2018 Proceedings. Boston, MA. <https://doi.org/10.17605/osf.io/tdfej>

Oxford Common File Layout Specifications: <https://ocfl.io/>

Session 11: Skill Session: Implementation & Documentation of Digital Curation Workflows

Required Readings

Find and bring to class an interesting visual representation of a digital curation/preservation workflow/process/etc. Upload to this Google Drive folder before the start of class:

[SI699_DigitalCurationWorkflows](#)

Session 12: Sustainability

Required Readings

Maron, N. L., Yun, J., & Pickle, S. (2013). Sustaining Our Digital Future: Institutional Strategies for Digital Content. JISC/ITHAKA S + R. Retrieved from <https://sca.jiscinvolve.org/wp/files/2013/01/Sustaining-our-digital-future-FINAL-31.pdf> (*read the Executive Summary, skim the rest*)

Rowell, C. J., & Cooksey, T. (2019, January 9). Archive of Hate: Ethics of Care in the Preservation of Ugly Histories. Retrieved February 12, 2019, from <https://www.ladyscience.com/blog/archive-of-hate-ethics-of-care-in-the-preservation-of-ugly-histories>

Additional Resources

Sustainability Health Check Tool for Digital Content Projects:

https://sr.ithaka.org/wp-content/uploads/2015/08/Sustainability_Health_Check_Tool.pdf

Myers, J., Hedstrom, M., Akmon, D., Payette, S., Plale, B. A., Kouper, I., ... Marini, L. (2015). Towards Sustainable Curation and Preservation: The SEAD Project's Data Services Approach. In 2015 IEEE 11th International Conference on e-Science (pp. 485–494). Munich, Germany: IEEE. <https://doi.org/10.1109/eScience.2015.56>

Session 13: Lab/Work Day

Required Readings

None

Session 14: Final Presentations