



**THE CATHOLIC UNIVERSITY OF AMERICA
SCHOOL OF LIBRARY AND INFORMATION SCIENCE**

**LSC 617
Digital Curation
Spring 2012**

**3 Credit Hours
Tuesday, 6:35PM - 9:05PM
Pangborn 302**

Instructor and Contact Information	Office Hours
Name: Dr. Jane Zhang Office: Marist 242 Phone: 202-319-5824 E-mail: zhangj@cua.edu	Wednesdays, 2:00 pm – 4:00 pm Or by appointment

Course Description

This course provides an overview of digital curation as a lifecycle management strategy to manage, evaluate, collect, organize, preserve, share, and support the use and re-use of digital assets. The course introduces digital curation models, infrastructures, standards, initiatives, and technical tools; and covers the concepts and skills involved in creating and managing an integrated and sustainable digital cultural heritage repository as a trusted body of digital information for current and future use.

Instructional Methods

The course uses a variety of instructional methods and educational activities including lectures, readings, assignments, class discussions, presentations, system review and analysis, projects, and guest speakers.

Required Text

Ross Harvey. *Digital Curation: A How-to-do-it Manual*. New York: Neal-Schuman Publishers, 2010.

Required Technologies

The following capabilities are required for course delivery:

- Familiarity with digital content creation and management environments and technologies
- Interest in exploring the application of digital curation software and tools

The following technologies are taught as an essential part of this course:

- Review and analysis of functionalities of software applications and tools designed to support digital curatorial activities such as capture, transfer, storage, preservation, organization, and use and reuse

Libraries

The CUA Libraries' wide range of resources and services, including databases, online journals, and FAQs are on the [main web site](#). For assistance on papers and assignments, consult the [research guides](#) or schedule an appointment with a [subject librarian](#).

Course Goals and Objectives

Upon completion of the course, students will be able to

- Identify and describe the basic concepts of digital curation and preservation
- Create outreach tools to educate targeted audience about the basic functions/processes of digital curation and preservation
- Interpret and apply professional standards and requirements relevant to digital curation and preservation
- Demonstrate the understanding of data management planning process to work with digital content creators
- Analyze and evaluate digital curatorial activities and technical tools

Course Requirements

Detailed description and instruction will be posted on the course site.

- Attendance & class participation (10%)
- Digital preservation outreach project (40%)
- Data management plan assignment (25%)
- Digital curation project case study (25%)

Expectations and policies

Academic honesty: Academic honesty is expected of all CUA students. Faculty are required to initiate the imposition of sanctions when they find violations of academic honesty, such as plagiarism, improper use of a student's own work, cheating, and fabrication.

The following sanctions are presented in the University procedures related to Student Academic Dishonesty (from <http://policies.cua.edu/academicundergrad/integrityprocedures.cfm>): “The presumed sanction for undergraduate students for academic dishonesty will be failure for the course. There may be circumstances, however, where, perhaps because of an undergraduate student’s past record, a more serious sanction, such as suspension or expulsion, would be appropriate. In the context of graduate studies, the expectations for academic honesty are greater, and therefore the presumed sanction for dishonesty is likely to be more severe, e.g., expulsion. ...In the more unusual case, mitigating circumstances may exist that would warrant a lesser sanction than the presumed sanction.”

Please review the complete texts of the University policy and procedures regarding Student Academic Dishonesty, including requirements for appeals, at <http://policies.cua.edu/academicundergrad/integrity.cfm> and <http://policies.cua.edu/academicundergrad/integrity.cfm>.

Accommodations for students with disabilities: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the instructor privately to discuss specific needs. Please contact Disability Support Services (at 202 319-5211, room 207 Pryzbyla Center) to coordinate reasonable accommodations for students with documented disabilities. To read about the services and policies, please visit the website: <http://disabilitysupport.cua.edu>.

Campus Resources for student support:

CUA Center for Academic Success
<http://success.cua.edu/services/index.cfm>
Pryzbyla Center, Suite 204
Phone: (202) 319-5655

CUA Counseling Center
<http://counseling.cua.edu/services/>
127 O'Boyle Hall
Phone: (202) 319-5765

Mullen Library
<http://libraries.cua.edu/welcome.html>
Phone: (202) 319-5070

Final Grading Scale:

A = 94-100
A- = 90-93
B+ = 87-89
B = 84-86
B- = 80-83
C = 70-79

F = Below 70

University grades:

The University grading system is available at <http://policies.cua.edu/academicundergrad/gradesfull.cfm#II> for undergraduates and <http://policies.cua.edu/academicgrad/gradesfull.cfm#iii> for graduate students. Reports of grades in courses are available at the end of each term on <http://cardinalstation.cua.edu>.

Syllabus changes

The instructor reserves the right to make changes to this syllabus as needed.

Course Schedule

The course schedule is subject to change depending on class needs. Additional/alternative readings may be provided.

Dates	Topics & Concepts	Readings and Assignments
Class 1 (1/10)	Course Introduction	Course Syllabus; Assignments; Group Projects
Class 2 (1/17)	Introduction to Digital Curation	Harvey. "Introduction." "Curation and Curators." "Sharing Knowledge and Collaborating." <i>Digital Curation</i> , pp. 3-18, 55-63, 93-102. Beagrie, Neil. "Digital Curation for Science, Digital Libraries, and Individuals." <i>IJDC</i> 1/1 (Autumn 2006): 3-16. Constantopoulos, Panos, and Costis Dallas. "Aspects of a Digital Curation Agenda for Cultural Heritage." <i>2008 IEEE International Conference on Distributed Human-Machine Systems. Athens, Greece: IEEE</i> . Dallas, Costis. "An Agency-oriented Approach to Digital Curation Theory and Practice." <i>International Cultural Heritage Informatics Meeting (ICHIM07): Proceedings</i> , J. Trant and D. Bearman (eds). Toronto: Archives & Museum Informatics. 2007. October 24, 2007. Yakel, Elizabeth. "Digital Curation." <i>OCLC Systems & Services</i> 23/4 (2007): 335-340.
Class 3 (1/24)	Conceptual Models	Harvey. "Conceptual Models." <i>Digital Curation</i> , pp. 33-44. Higgins, Sarah. "The DCC Curation Lifecycle Model." <i>IJDC</i> 3/1

		<p>(2008).</p> <p>Constantopoulos, Panos et al. "DCC&U: An Extended Digital Curation Lifecycle Model." <i>IJDC</i> 1/4 (2009): 43-45.</p> <p>Lavoie, Brian. "Meeting the Challenges of Digital Preservation: The OAIS Reference Model." <i>OCLC Newsletter, No. 243</i> (January/February 2000): 26-30.</p>
Class 4 (1/31)	Data Creation and Management	<p>Harvey. "Defining Data." "Designing Data." "Creating Data." <i>Digital Curation</i>, pp. 45-51, 105-130.</p> <p>Brown, Adrian. "Selecting File Formats for Long-Term Preservation." London: The National Archives (August 2008).</p> <p>Cunningham, Adrian. "Digital Curation/Digital Archiving: A View from the National Archives of Australia." <i>American Archivist</i> 71/2 (Fall/Winter 2008): 530-543.</p> <p>Frigoli, Julia et al. "Developing and Communicating Responsible Data Management Policies to Trainees and Colleagues." <i>Science and Engineering Ethics</i>, 2010 Apr 27.</p> <p>Schmidt, Lisa, Cynthia Ghering, and Shawn Nicholson. "Digital Curation Planning at Michigan State University." <i>Library Resources & Technical Services</i> 55/2 (April 2011): 104-118.</p>
Class 5 (2/7)	Digital Appraisal and Acquisition	<p>Harvey. "Deciding What Data to Keep." "Ingesting Data." <i>Digital Curation</i>, pp.131-159.</p> <p>Digital Preservation Coalition. "Decision Tree for Selection of Materials for Long-Term Retention." (2006)</p> <p>Faundeen, John and Lyndon R. Oleson. "Scientific Data Appraisals: The Value Driver for Preservation Efforts." <i>PV 2007 Conference</i>.</p> <p>Harvey, Ross. "Appraisal and Selection." DCC Briefing Paper (2007).</p> <p>Waugh, Andrew. "The Design and Implementation of an Ingest Function to a Digital Archive." <i>D-Lib</i> 13/11-12 (November/December 2007).</p> <p>Witt, Michael and Jake R. Carlson. "Conducting a Data Interview." Purdue Libraries. Libraries Research Publication (2007).</p>

Class 6 (2/14)	Digital Repository Infrastructures (I)	<p>Data management plan assignment due</p> <p>Harvey. "Storing Data." <i>Digital Curation</i>, pp. 181-198.</p> <p>Baker, Karen S., and Lynn Yarmey. "Data Stewardship: Environmental Data Curation and a Web-of-Repositories." <i>IJDC</i> 2/4 (2009): 12-27.</p> <p>Gladney, Henry M. "Long-Term Preservation of Digital Records: Trustworthy Digital Objects." <i>American Archivist</i> 72 (Fall/Winter 2009): 401-435.</p> <p>Knight, Gareth, and Mark Hedges. "Modelling OAIS Compliance for Disaggregated Preservation Services." <i>IJDC</i> 1/2 (2007): 62-72.</p> <p>LeFurgy, William. "Levels of Service for Digital Repositories." <i>D-Lib Magazine</i> 8/5 (May 2002).</p> <p>Ross, Seamus and Andrew McHugh. "The Role of Evidence in Establishing Trust in Repositories," <i>D-Lib</i> 12, 7/8 (July/August 2006).</p>
(2/21)	NO CLASS (Administrative Monday)	
Class 7 (2/28)	Digital Repository Infrastructures (II)	<p>Caplan, Priscilla. "The Florida Digital Archive and DAITSS: A Model for Digital Preservation." <i>Library Hi Tech</i> 28/2 (2010): 224-234.</p> <p>Lynch, Clifford A. "Institutional Repositories: Essential Infrastructure for Scholarship in the Digital Age" <i>ARL Bimonthly Report</i> 226 (February 2003): 1-7.</p> <p>Smith, MacKenzie et al. "DSpace: An Open Source Dynamic Digital Repository." <i>D-Lib</i> 9/1 (2003).</p> <p>Staples, Thornton et al. "The Fedora Project: An Open-source Digital Object Repository Management System." <i>D-Lib</i> 9/4 (2003).</p>
(3/6)	NO CLASS (Spring Recess)	
Class 8 (3/13)	Digital Preservation Strategies/Solutions	<p>Harvey. "Preservation Planning and Policy." <i>Digital Curation</i>, pp. 83-92.</p>

	(I)	<p>Brown, Adrian. "Developing Practical Approaches to Active Preservation." <i>IJDC</i> 1/2 (2007): 3-11.</p> <p>Hitchcock, Steve, and David Tarrant. "Characterising and Preserving Digital Repositories: File Format Profiles." <i>Ariadne</i> 30/66 (2011).</p> <p>Jantz, Ronald, and Michael J. Giarlo. "Digital Preservation: Architecture and Technology for Trusted Digital Repositories." <i>D-Lib</i> 11/6 (June 2005).</p> <p>Kenney, Anne R. and Nancy Y. McGovern. "The Five Organizational Stages of Digital Preservation." In <i>Digital Libraries: A Vision for the 21st Century: A Festschrift in Honor of Wendy Lougee on the Occasion of her Departure from the University of Michigan</i>. Ann Arbor, MI: MPublishing, University of Michigan Library, 2003.</p>
Class 9 (3/20)	Digital Preservation Strategies/Solutions (II)	<p>Harvey. "Preserving Data." <i>Digital Curation</i>, pp.161-179.</p> <p>Barateiro, Jose et al. "Designing Digital Preservation Solutions: A Risk Management-Based Approach." <i>IJDC</i> 5/1 (2010): 4-17.</p> <p>Digital Preservation Coalition. <i>Handbook</i>. Section 4.3.2. Preservation Strategies.</p> <p>Paradigm Project. <i>Workbook on Digital Private Papers</i>. Chapter 8: Digital Preservation Strategies.</p> <p>Rosenthal, David S.H. "Format Obsolescence: Assessing the Threat and the Defenses." <i>Library Hi Tech</i> 28/2 (2010): 195-210.</p> <p>van der Hoeven et al. "Emulation for Digital Preservation in Practice: The Results." <i>IJDC</i> 2/2 (2007): 123-132.</p>
Class 10 (3/27)	Data Contextualization & Representation	<p>Digital curation project case study due</p> <p>Harvey. "Description and Representation of Information," pp. 65-82.</p> <p>Bekiari, C., Constantopoulos, P., & Doerr, M. "Information Design for Cultural Documentation." <i>DELOS Conference 2007, Pisa</i>.</p> <p>Dappert, Angela, and Markus Enders, "Using METS, PREMIS and MODS for Archiving eJournals," <i>D-Lib</i> 14/9-10</p>

		<p>(September/October 2008).</p> <p>Gelernter & Lesk. "Use of Ontologies for Data Integration and Curation." <i>IJDC</i> 1/6 (2011): 70-78.</p> <p>Kim, Yunhyong and Seamus Ross. "Automating Metadata Extraction: Genre Classification." <i>Proceedings of the UK e-Science All Hands Meeting</i>, Nottingham, UK. (2006).</p>
Class 11 (4/3)	Data Use and Reuse	<p>Case study presentations</p> <p>Harvey. "Using and Reusing Data," <i>Digital Curation</i>, pp. 199-216.</p> <p>Carlson, Samuelle and Ben Anderson. "What Are Data? The Many Kinds of Data and Their Implications for Data Re-use." <i>Journal of Computer-Mediated Communication</i> 12/2 (2007).</p> <p>Charlesworth, Andrew. "Digital Curation, Copyright, and Academic Research." <i>IJDC</i> 1/1 (Autumn 2006): 17-32.</p> <p>Faniel, Ixchel M. and Ann Zimmerman. "Beyond the Data Deluge: A Research Agenda for Large-Scale Data Sharing and Reuse." <i>IJDC</i> 1/6 (2011): 58-69.</p> <p>van den Heuvel, Charles et al. "Annotators and Agents in a Web-based Collaboratory: Disclosing Cartographical Collections." J. Trant and D. Bearman (eds). <i>Museums and the Web 2010: Proceedings</i>. Toronto: Archives & Museum Informatics. March 31, 2010.</p>
Class 12 (4/10)	Digital Scholarship: Digital Humanities and e-Science	<p>Case study presentations</p> <p>Harvey. "The Changing Landscape." <i>Digital Curation</i>, pp. 19-31.</p> <p>Altman, Micah et al. "Digital Preservation through Archival Collaboration: The Data Preservation Alliance for the Social Sciences." <i>American Archivist</i> 72 (Spring/Summer 2009): 170-184.</p> <p>ARL Joint Task Force on Library Support for E-Science. "Agenda for Developing e-Science in Research Libraries." November 2007.</p> <p>O'Donoghue, Jean, and Jano I. van Hemert. "Using the DCC Lifecycle Model to Curate a Gene Expression Database: A Case</p>

		<p>Study." <i>IJDC</i> 3/4 (2009): 57-70.</p> <p>Svensson, Patrik . "The Landscape of Digital Humanities." <i>Digital Humanities Quarterly</i> 4/1 (Summer 2010).</p> <p>Vardigan, Mary and Cole Whiteman. "ICPSR meets OAIS: Applying the OAIS Reference Model to the Social Science Archive Context." <i>Archival Science</i> 7 (2007): 73–87.</p> <p>Westra, Brian. "Data Services for the Sciences: A Needs Assessment." <i>Ariadne</i> 64 (2010).</p>
Class 13 (4/17)	Digital Preservation Outreach Group Projects	Case study presentations
Class 14 (4/24)	Preservation Week Presentations	<p>Digital preservation outreach presentation due</p> <p>Digital preservation outreach written assignment due by April 27</p>

COURSE RESOURCES

Journals

American Archivist. <http://www2.archivists.org/american-archivist>.

Ariadne. <http://www.ariadne.ac.uk/information/#about>.

D-Lib Magazine. <http://www.dlib.org/>

Digital Humanities Quarterly (DHQ). <http://digitalhumanities.org/dhq/>.

First Monday. <http://www.firstmonday.org/index.html>.

International Journal of Digital Curation (IJDC). <http://www.ijdc.net/>.

Journal of Digital Information (JODI). <http://journals.tdl.org/jodi>.

Journal of Web Librarianship.

Library Hi Tech.

Web Resources

Library of Congress. The Signal Digital Preservation Blog.
<http://blogs.loc.gov/digitalpreservation/about/>.

Digital Curation Centre (DCC). <http://www.dcc.ac.uk/>.

University of California Curation Center (UC3). <http://www.cdlib.org/services/uc3/>.

California Digital Library. Curation Micro-Services. <http://www.cdlib.org/services/uc3/curation/>.

ACRL Digital Curation Interest Group Mailing List. <http://connect.ala.org/node/132171>.

CurateCamp. <http://curatecamp.org/>.

DigCCurr. <http://ils.unc.edu/digccurr/products.html#curriculum>.

Digging into Data Challenge. <http://www.diggingintodata.org/>.

Digital Curation Exchange Resources. <http://digitalcurationexchange.org/resources>.

ARL Report: *New Roles for New Times: Digital Curation for Preservation*, March 2011.
http://www.arl.org/bm~doc/nrnt_digital_curation17mar11.pdf.

Planets Training Materials. <http://www.planets-project.eu/training-materials/>.

PADI: Preserving Access to Digital Information. <http://www.nla.gov.au/padi/index.html>.