Course Overview
This course will address the issues and practices involved in digitizing analog materials and in preserving digital materials. It will address current issues, the search for solutions and standards, digital preservation programs, risk management, and disaster recovery. Several contemporary digital preservation efforts will be examined in detail through lecture and student case studies.

Readings
The course readings will be online, in e-reserves or available in Course Documents. E-Reserves will be available through the class elms blackboard site. Additional readings and other materials may be distributed during the semester.

Materials marked “Examine” are intended for background. You should examine them to understand the information in them and be aware of them when you have reason to need them in the future.

Materials marked “FYI” are usually loosely related to the course material of the associated topic and are solely for your information and/or enjoyment.

Course Structure
The course structure will consist of weekly lectures and discussion led by the instructor and/or a guest expert. Three weeks will be devoted to student presentations of their digital preservation case studies.

Course Requirements
Students are expected to attend class, having read the assigned readings and prepared to participate in the discussion.
Digital Preservation Policy Report (15%)
Each student will select a digital repository or digital collaboration initiative anywhere in the world and evaluate it in terms of how it is addressing the digital preservation issues it faces. As usual, it is best to avoid one’s place of employment. The report should be 5-7 pages, double-spaced, and should:

1. Describe the institution’s or collaboration’s policy (or practice if it lacks a formal policy) as evidenced by:
   a. Mission statement/ Acquisition policy
   b. Services provided to users
   c. Security
   d. Digital preservation program and practices
   e. Any special features or noteworthy elements
2. Evaluate the institution’s or digital collaboration’s digital collection and digital preservation program as practiced based on appropriate archival and records management standards.
3. Refer to the literature on digital preservation policies as appropriate.
4. Propose ways that the “success” of the program could be measured or evaluated.
5. Propose ways that the institution’s or collaboration’s policy and practice could be strengthened.

This report is due February 23, 2011.

Case Studies (30%)
Students (individually or preferably in teams) will be required to research and prepare both an oral report and an extended written report on some aspect of digital preservation. Teams of two to three students are encouraged to ensure greater depth of research and coverage of the topic. A list of Potential Case Studies is in Course Documents. You are not confined to this list but it may help you determine a project that will interest you.

Each student/team must submit a topic abstract for approval. The topic abstract is not a lengthy formal proposal. It can be one or two paragraphs stating the proposed case study, what the student/team sees as the importance of that topic, and a little about the proposed approach and sources. Aspects can change as the student/team research and develop the topic. The main purpose in reviewing and approving the selections is to ensure there is enough material on which to base the presentation, that the focus is appropriate (neither too broad nor too narrow), and that the findings highlight the digital preservation "lessons learned" for that topic.

All case study abstracts must be approved by March 2, 2011.
Case Study Presentation (15%)

Each student or team will present the results/findings/conclusions of their case study on April 6, April 13, or April 20. The date will be determined by the most logical grouping of case studies once all case studies have been selected. The case study presentation should last thirty to forty minutes and should focus on the
1. goals of the effort being studied,
2. activities undertaken,
3. results or significant accomplishments/conclusions to date, and
4. impact that the effort has had/will have on archival preservation of digital records and objects.

The presentation should include electronic slides (e.g., powerpoint). All team members will receive a common grade for the case study presentation. Each team should prepare handouts for the class that abstract the effort and its contributions. The team should prepare a brief bibliography of required readings and distribute it to the class a minimum of one week before the case study presentation so the class is prepared for the discussion. Failure to provide a reading list at least one week prior to your presentation will reduce your oral presentation grade.

Additional information about the case study presentation is available on the elms blackboard site. See Case Study Outcomes.

Case Study Written Report (15%)

Each team will prepare a collective written report on their case study. The collective written report should be between 15 and 20 pages, double-spaced with citations to sources (footnotes, endnotes or notations in the text) where appropriate. The report should indicate the authors of each section and whether any team member contributed significantly more or less than the team’s average contribution to the written report. The slides and class reading list can be included as attachments beyond the page limit.

The Case Study written report is due to the instructor no later than April 27, 2011.

Digital Preservation Approach for Your Personal Digital Materials (20%)

In your personal, academic, and professional life you have begun to amass personal digital data files such as word processing, music, photography, spreadsheets, email accounts, games, second life activities, social networking, and various software applications. Few, if any, of you have begun serious digital records management and preservation activities for these files. All would suffer varying degrees of loss and/or expend significant time and energy to replicate the files, if they can be replicated. The purpose of this assignment is to have you consider how to apply the principles, standards, approaches and activities discussed in this course and others to your personal digital data files. The report should be 5-7 pages, double-spaced, and should:
1. Describe the categories of personal data files you have.
2. Describe the digital preservation issues associated with each data category.
3. Describe the approach(es) you would take to provide long term access to those data files you determine have long term value to you. Discuss why you think those broader standards, principles and best practices will succeed.
4. Describe all files, if any, for which you cannot provide long term access using current standards, principles, approaches, and best practices. What will you do for those data files?
5. Discuss what changes, if any, you will make in the future when creating or acquiring digital data files and software.


**Final Exam (25%)**
There will be a take-home final exam in the course. The final will be handed out at the end of class on May 4. It must be returned to the instructor by e-mail or in paper form by 5:30 pm, May 11, 2011.

**Class Participation (10%)**
Students are expected to attend class, having read the assigned readings and prepared to participate in the discussion. Students will be graded on how well prepared they are for class, as well as their contributions to the learning environment.

**Grade**
The course grade will be assigned in accordance with University and CLIS guidelines: A=Outstanding; B=Satisfactory; C=Barely Adequate; D/F=Failure; I=Incomplete.

The grade will be computed as follows: Digital Preservation Policy Report = 15%; Case study = 15%; Case Study Presentation = 15%; Personal Data Files Digital Preservation Report = 20%, Final exam = 25%; Class participation = 10%.

**Please note:** The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit [http://www.shc.umd.edu](http://www.shc.umd.edu)

To further exhibit your commitment to academic integrity, remember to include and sign the Honor Pledge on all examinations and assignments:
"I pledge on my honor that I have not given or received any unauthorized assistance on this examination (assignment)."

Website: shc.umd.edu

This course follows all University policies and procedures, including adherence to the Honor Code, accommodation for students with disabilities, and consideration for religious holidays
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<tr>
<th>DATE</th>
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<td>Overview, General Concepts</td>
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<td>2 February</td>
<td>Digital Artifacts and Digital Objects, Selection for Preservation</td>
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<td>9 February</td>
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<td>Imaging - Introduction, project management, and costs of digitization</td>
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<td>Guest: Jennie Levine Knies, UMD</td>
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<td>23 February</td>
<td>Digital Reformatting – Text, Photos, oversized materials</td>
<td>Digital Preservation Policy Report Due</td>
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<td>Digital Reformatting – Audio, Video and other formats</td>
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<td>16 March</td>
<td>Preserve Technology</td>
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<td>April 20 Case Study Reading List Due</td>
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<td>27 April</td>
<td>Initiatives and Collaborations in Digital Preservation</td>
<td>Case Study Written Reports Due</td>
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<td>Guest: Terry Owen, DRUM, UMD</td>
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<td>4 May</td>
<td>Challenges for the Future</td>
<td>Personal Digital Materials Report due</td>
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<td>11 May</td>
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<td>Final Exam Due</td>
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</tbody>
</table>
Unit 1: Overview, General Concepts – What do we preserve? The OAIS Reference Model,

Readings:


Examine:

Cornell University, Timeline: Digital Technology and Preservation. Available at: http://www.icpsr.umich.edu/dpm/dpm-eng/timeline/viewall.html


FYI:
February 2
Unit 2: Digital Artifacts and Digital Objects, Selection for Preservation

Readings:


Examine:
Table of Digital Preservation Principles (in Course Documents)

UNESCO Threats to Digital Continuity (in Course Documents)

UNESCO Threats to Digital Integrity (in Course Documents)

February 9
Unit 3: Attributes to Preserve

Readings:


erpa guidance, Digital Preservation Policy Tool, September 2003. Available at: http://www.erpanet.org/guidance/index.php (select and download this study)


Examine:


Digital Curation Centre and Digital Preservation Europe, “Digital Repository Audit Method Based on Risk Assessment (DRAMBORA)” at: http://www.repositoryaudit.eu/download. You are required to provide name, email, and institution. You will then receive access to the document. Be sure to allow sufficient time.

February 16
Unit 4: Imaging - Introduction, project management, and costs of digitization
Guest Lecturer: Jennie Levine Knies, University of Maryland

Readings:

Robert Rieger and Geri Gay, "Tools and Techniques in Evaluating Digital Imaging Projects" by RLG DigiNews 3 (3) 2003. Available at: 
http://digitalarchive.oclc.org/da/ViewObjectMain.jsp?fileid=0000070513:000006282081&reqid=84#technical1

Steven Puglia, “Costs of Digital Imaging Projects,” RLG Diginews, 3:5 (October 15, 1999). Available at: 


Examine:
Federal Digitization Guidelines for Cultural Heritage Institutions. Available at: 
http://www.digitizationguidelines.gov/ See especially the Guidelines for Still Images at: 
http://www.digitizationguidelines.gov/

University of Maryland, Best Practice Guidelines at: 

Handbook for Digital Projects: A Management Tool for Preservation and Access. The Handbook is broken into separate sections. Available at: 

Library of Congress, Building Digital Collections: A Technical Overview. Available at: 
http://memory.loc.gov/ammem/about/techIn.html

Howard Besser, Introduction to Imaging, Revised edition, 
http://www.getty.edu/research/conducting_research/standards/introimages/

February 23
Unit 5: Digital Reformatting – Text, Photos, oversized materials

Readings:

“Common Imaging Problems,” The Library in Bits and Bytes. Available at: 
www.lib.umd.edu/dcr/events/symposium/puglia_reed_rhodes.html


Examine:

Prints and Photographs Division, Library of Congress, Cataloging and Digitizing Toolbox, Available at: http://www.loc.gov/rr/print/cataloging.html


FYI:


March 2
Unit 6: Digital Reformatting – Audio, Video and other formats
Guest: Kate Murray, NARA
Readings:


Examine:
JISC Digital Media Advice for Moving Images and Audio. Available at: http://www.jiscdigitalmedia.ac.uk/advice/

Adobe video and audio primers. Available at: http://www.adobe.com/motion/primers.html


FYI:

March 9
Unit 7: Digital Preservation Strategies
Readings:


Examine;

FYI:


March 16
Unit 8: Preserve Technology

Readings:


Charles Piller, “Unable to Repeat the Past; Storing information is easier than ever, but it's also never been so easy to lose it -- forever. We could end up with a modern history gap.” Los Angeles Times, September 13, 2006. Available in Course Documents.

erpa guidance, Selecting Technologies Tool, September 2003. Available at: http://www.erpanet.org/guidance/index.php (select and download this study)


Examine:
The Online Computer Library Consortium (OCLC) at:
http://www.oclc.org/search/search.pl?site=new_worldwide&client=new_worldwide&q=digital+preservation+services


March 23 - Spring Break

March 30
Unit 9: Preserve Objects
Readings:


Examine:
Fedora Available at: http://www.fedora-commons.org/

LOCKKS at: http://www.lockss.org/lockss/Home

PRONOM at: http://www.nationalarchives.gov.uk/pronom/

GDFR at: http://hul.harvard.edu/gdfr/

April 6
Unit 10: Student Case Studies
April 13
Unit 11: Student Case Studies

April 20
Unit 12: Student Case Studies

April 27
Unit 13: Initiatives and Collaborations in Digital Preservation

Guest: Terry M. Owen, DRUM Coordinator, UMD Libraries

Readings:


Examine the following collaborations:

Internet Archive at: http://www.archive.org

InterPARES (especially authenticity and preservation) at: http://www.interpares.org/book/index.cfm

Digital Library Federation at: http://www.dlib.org/

Digital Preservation Europe at: http://www.digitalpreservationeurope.eu/about/

Council on Library and Information Resources (CLIR) at http://www.clir.org


DSpace at: http://www.dspace.org/

LOCKKS (and CLOCKKS) at: http://www.lockss.org/lockss/Home

Preservation and Long-term Access through Networked Services (PLANETS) at: http://www.planets-project.eu/

May 4
Unit 14: Challenges for the Future
Readings:


Jonas Palm, “The Digital Black Hole,” in TAPE Project. Available at: http://www.tape-online.net/docs/Palm_Black_Hole.pdf


erpa guidance, Cost Orientation Tool. Available at: http://www.erpanet.org/guidance/index.php (select and download this study)


Examine:

FYI:

May11: Take Home final due