

INF 392K

Fall 2024



## Course Information

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Instructional Mode: Face-to-face

Meeting Times: Wed 06:00 PM - 09:00 PM

Meeting Location: UTA 1.210A

Unique Number: 27979

## Instructor

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Brenna Edwards

Email: [brenna.edwards@austin.utexas.edu](mailto:brenna.edwards@austin.utexas.edu)

## Office Hours and Location

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**Office Location:** Harry Ransom Center 4.106HA

**Office Hours:** By appointment

**Communication:** The course Canvas site can be found at [utexas.instructure.com](https://utexas.instructure.com). Please email me through Canvas. You are responsible for ensuring that the primary email address you have recorded with the university is the one you will check for course communications because that is the email address that Canvas uses. Please verify your current primary email address at [https://utdirect.utexas.edu/apps/utd/all\\_my\\_addresses/](https://utdirect.utexas.edu/apps/utd/all_my_addresses/).

**Asking for Help:** If you need to meet in-person, office hours are by appointment. You can email me at any time with your questions and I will do my best to answer your questions in a timely manner. If email is not sufficient, we can arrange for a teleconference discussion as an alternative.

## Catalog Description

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Examines the permanent archiving of digital information. Covers media refreshment; emulation; migration; and electronic records repository construction and administration. Case study projects involving campus repositories and off-campus institutions. Students use legacy hardware and software and digital forensics tools to preprocess digital collections for repository storage. Also explores issues in long-term electronic records

## Overview of the Class

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All instructions, assignments, readings, rubrics and essential information will be on the Canvas website at [utexas.instructure.com](https://utexas.instructure.com). Check Canvas regularly. **Changes** to the schedule may be made at my discretion if circumstances require. I will announce any such changes in class and will also communicate them via a Canvas announcement. It is your responsibility to note these changes when announced, and I will do my best to ensure that you are notified of changes with as much advance notice as possible.

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
One	Aug 28	Syllabus + Code of Conduct What are digital archives and why do we preserve them?	Create a community code of conduct	"What Does it Take to Be a Well-rounded Digital Archivist?" <a href="https://blogs.loc.gov/thesignal/2014/10/what-does-it-take-to-be-a-well-rounded-digital-archivist/">https://blogs.loc.gov/thesignal/2014/10/what-does-it-take-to-be-a-well-rounded-digital-archivist/</a>  Digital Preservation and Nuclear Disaster: An Animation - <a href="https://www.youtube.com/watch?v=pbBa6Oam7-w">https://www.youtube.com/watch?v=pbBa6Oam7-w</a>  Digital Library Federation Code of Conduct - <a href="https://www.diglib.org/about/code-of-conduct/">https://www.diglib.org/about/code-of-conduct/</a>	
Two	Sept 4	<b>Acronym Week/Standards</b>	Searching in scholarly	<b>Required:</b> NDSA Levels of	<b>First Assignment</b>

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
		<p><b>and Databases/Scholarly Articles</b>  NDSA Levels of Preservation</p> <p>OAIS</p> <p>PREMIS</p> <p>Scholarly Databases/Articles and how to read them</p>	<p>databases on topics discussed in class</p>	<p>Preservation - <a href="https://ndsa.org/publications/levels-of-digital-preservation/">https://ndsa.org/publications/levels-of-digital-preservation/</a></p> <p>OAIS - <a href="http://www.oais.info/">http://www.oais.info/</a></p> <p>PREMIS - <a href="https://www.loc.gov/standards/premis/">https://www.loc.gov/standards/premis/</a></p> <p>The DCC Curation Lifecycle Model - <a href="https://www.researchgate.net/publication/220924444_The_DCC_curation_lifecycle_model">https://www.researchgate.net/publication/220924444_The_DCC_curation_lifecycle_model</a></p> <p>How to Talk to IT About Digital Preservation - <a href="https://doi.org/10.1080/15332748.2018.1528827">https://doi.org/10.1080/15332748.2018.1528827</a></p> <p><b>Optional:</b>  Using OAIS for Curation - <a href="https://www.dcc.ac.uk/sites/default/files/documents/resource/briefing-papers/using-oais-for-curation.pdf">https://www.dcc.ac.uk/sites/default/files/documents/resource/briefing-papers/using-oais-for-curation.pdf</a></p> <p>The Producer-Archive Interface Methodology Abstract Standard (PAIMAS) - <a href="https://arc.aiaa.org/doi/">https://arc.aiaa.org/doi/</a></p>	<p><b>Announced</b></p>

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
				<p data-bbox="894 279 1208 359"><a href="https://www.industrydocuments.ucsf.edu/docs/10.2514/6.2004-649-446">pdf/10.2514/6.2004-649-446</a></p> <p data-bbox="894 411 1208 611">How to Read a Scholarly Article (Brown) - <a href="https://libguides.brown.edu/evaluate/Read">https://libguides.brown.edu/evaluate/Read</a></p> <p data-bbox="894 663 1208 867">Reading Scholarly Articles (USC) - <a href="https://libguides.usc.edu/evaluate/scholarlyarticles">https://libguides.usc.edu/evaluate/scholarlyarticles</a></p>	

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
Three	Sept 11	<p><b>Storage Media and Intro to Linux</b></p> <p>Different types of storage media and storing the physical representation</p> <p>Magnetic media vs Optical media</p>	<p>Identify types of storage media and practice Linux commands</p>	<p><b>Required:</b></p> <p>Archival Storage - <a href="https://www.iasa-web.org/book/export/html/546">https://www.iasa-web.org/book/export/html/546</a></p> <p>Why aren't optical disks the top choice for archive storage? - <a href="https://www.networkworld.com/article/3638116/why-aren-t-optical-disks-the-top-choice-for-archive-storage.html">https://www.networkworld.com/article/3638116/why-aren-t-optical-disks-the-top-choice-for-archive-storage.html</a></p> <p>An Optical Media Preservation Strategy for New York University's Fales Library &amp; Special Collections - <a href="https://archive.nyu.edu/handle/2451/43877">https://archive.nyu.edu/handle/2451/43877</a></p> <p><b>Optional:</b></p> <p>The Linux command line for beginners: A Brief History Lesson - <a href="https://ubuntu.com/tutorials/command-line-for-beginners#1-overview">https://ubuntu.com/tutorials/command-line-for-beginners#1-overview</a></p>	

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
Four	Sept 18	<p><b>Metadata and Authority/Linked Data</b></p> <p><i>GUEST LECTURER</i></p> <p>Metadata Linked Data Wikidata Ensuring provenance</p>	Wikidata exercise	<p><b>Required:</b></p> <p>NISO Understanding Metadata -  <a href="https://groups.niso.org/higherlogic/ws/public/download/17446/Understanding%20Metadata.pdf">https://groups.niso.org/higherlogic/ws/public/download/17446/Understanding%20Metadata.pdf</a></p> <p>EAD -  <a href="https://www.loc.gov/ead/tglib/index.html">https://www.loc.gov/ead/tglib/index.html</a></p> <p>Understanding Linked Open Data as a Web-Scale Database -  <a href="https://ieeexplore.ieee.org/document/5477146">https://ieeexplore.ieee.org/document/5477146</a></p> <p><b>Optional:</b></p> <p>Software Metadata Recommended Format Guide -  <a href="https://www.softwarepreservationnetwork.org/wp-content/uploads/2022/01/Software_Metadata_Recommended_Format_Guide_v1.1.0_Oct-2023.pdf">https://www.softwarepreservationnetwork.org/wp-content/uploads/2022/01/Software_Metadata_Recommended_Format_Guide_v1.1.0_Oct-2023.pdf</a></p> <p>Wikidata for Digital Preservationists -  <a href="https://www.dpconline.org/docs/technology-watch-reports/2551-thorntonwikidatadpc-revsionthornton/file">https://www.dpconline.org/docs/technology-watch-reports/2551-thorntonwikidatadpc-revsionthornton/file</a></p>	

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
Five	Sept 25	<b>Imaging (Why and How?)</b>	Practice imaging using BitCurator/FTK Imager	<p><b>Required:</b> Disk Imaging Decision Factors, DANNNG - <a href="https://dannng.github.io/disk-imaging-decision-factors.html">https://dannng.github.io/disk-imaging-decision-factors.html</a></p> <p>OSSArcFlow As-Is Workflows: All Workflows - <a href="https://educopia.org/oss-arcflow-as-is-all-workflows/">https://educopia.org/oss-arcflow-as-is-all-workflows/</a></p> <p><b>Optional:</b> It's the money that matters in long-term preservation - Canvas</p> <p>Copyright and Preservation of Born-digital Materials: Persistent Challenges and Selected Strategies - <a href="https://meridian.allenpress.com/american-archivist/article/83/2/238/462517/Copyright-and-Preservation-of-Born-digital">https://meridian.allenpress.com/american-archivist/article/83/2/238/462517/Copyright-and-Preservation-of-Born-digital</a></p>	
Six	Oct 2	<b>Processing Tools and AIPs and SIPs</b> BitCurator Personally Identifying Information (PII)	Explore BitCurator environment; Brunnhilde, BulkExtractor, and BulkReviewer	<p><b>Required:</b> Digital Processing Framework - <a href="https://ecommons.cornell.edu/items/4f5d9393-6ea6-41b2-bf3d-7903a848fd3a">https://ecommons.cornell.edu/items/4f5d9393-6ea6-41b2-bf3d-7903a848fd3a</a></p>	

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
				<p>BitCurator -  <a href="https://bitcurator.net/bitcurator/">https://bitcurator.net/bitcurator/</a></p> <p>BitCurator Quick Start Guide -  <a href="http://distro.ibiblio.org/bitcurator/docs/BitCurator-Quickstart-v4.x.x.pdf">http://distro.ibiblio.org/bitcurator/docs/BitCurator-Quickstart-v4.x.x.pdf</a></p> <p>Brunnhilde -  <a href="https://www.bitarchivist.net/projects/brunnhilde">https://www.bitarchivist.net/projects/brunnhilde</a></p> <p><b>Optional:</b>  Announcing the Digital Processing Framework -  <a href="https://saaers.wordpress.com/2018/11/13/announcing-the-digital-processing-framework/">https://saaers.wordpress.com/2018/11/13/announcing-the-digital-processing-framework/</a></p> <p>BulkReviewer -  <a href="https://bulk-reviewer.readthedocs.io/en/latest/">https://bulk-reviewer.readthedocs.io/en/latest/</a></p> <p>BulkExtractor/BEViewer -  <a href="https://github.com/simsong/bulk_extractor/wiki/BEViewer">https://github.com/simsong/bulk_extractor/wiki/BEViewer</a></p> <p>Security Without Obscurity: Managing Personally Identifiable Information in Born-</p>	



Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
				Digital Archives - <a href="https://doi.org/10.1080/01960075.2014.913966">https://doi.org/10.1080/01960075.2014.913966</a>	
Seven	Oct 9	<b>Appraisal, Workflows, and Donors</b> Appraisal Working with Donors Workflows	Practice appraisal on own files and create workflow	<b>Required:</b> Beyond the Workflow: Archivists' Aspirations for Digital Curation Practices - <a href="https://link.springer.com/article/10.1007/s10502-021-09365-0">https://link.springer.com/article/10.1007/s10502-021-09365-0</a>  Chapter Three: Acquisition Workflow, Creating Adaptable Digital Preservation Workflows - <a href="https://journals.ala.org/index.php/ltr/article/view/7571">https://journals.ala.org/index.php/ltr/article/view/7571</a>  Accessioning Best Practices, Born Digital Section - <a href="https://accessioning.gitbook.io/archival-accessioning-best-practices/methods-and-practices/establishing-custody-packing-transfer-and-intake-of-new-collections#section8">https://accessioning.gitbook.io/archival-accessioning-best-practices/methods-and-practices/establishing-custody-packing-transfer-and-intake-of-new-collections#section8</a>  <b>Optional:</b> Critical Digital Archives - in Canvas	<b>First Assignment DUE</b>

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
				Archival Appraisal and Acquisition - in Canvas	
Eight	Oct 16	<b>Preservation Environments</b> Archivemata Preservica Creating AIPs	Sandboxes	<b>Required:</b> Archivemata - <a href="https://www.archivemata.org/en/docs/archivemata-1.13/">https://www.archivemata.org/en/docs/archivemata-1.13/</a>  Preservica - <a href="https://preservica.com/heritage-digital-preservation-services">https://preservica.com/heritage-digital-preservation-services</a>  Cloud storage for digital preservation: optimal uses of Amazon S3 and Glacier: <a href="https://www.emerald.com/insight/content/doi/10.1108/LHT-12-2014-0118/full/html">https://www.emerald.com/insight/content/doi/10.1108/LHT-12-2014-0118/full/html</a>	<b>Final Project Announced</b>
Nine	Oct 23	<b>Access, Description, and Emulation</b> Migration vs Normalization vs Emulation - which one to use?  EaaS - Emulation-as-a-Service Infrastructure  Access methods	Experiment with EaaS	<b>Required:</b> "Quietly Incomplete": Academic Historians, Digital Archival Collections, and Historical Research in the Web Era - <a href="https://elischolar.library.yale.edu/jcas/vol8/iss1/18/">https://elischolar.library.yale.edu/jcas/vol8/iss1/18/</a>  Examples of Born Digital Description in Finding Aids - <a href="https://borndigitaldescri">https://borndigitaldescri</a>	

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
		Description!		<p data-bbox="894 279 1208 359"><a href="http://www.ptoninfindingaids.wordpress.com">ptoninfindingaids.wordpress.com</a></p> <p data-bbox="894 405 1208 695">Describing the digital: the archival cataloguing of born-digital personal papers - <a href="https://www.tandfonline.com/doi/full/10.1080/23257962.2016.1139494">https://www.tandfonline.com/doi/full/10.1080/23257962.2016.1139494</a></p> <p data-bbox="894 741 1208 989">Accessing Software: Emulation in Information Institutions - <a href="https://muse.jhu.edu/article/923011">https://muse.jhu.edu/article/923011</a></p> <p data-bbox="894 1035 1208 1283"><b>Optional:</b> Digital Library Federation Born-Digital Access Working Group Access Values - <a href="https://osf.io/ed7vk/">https://osf.io/ed7vk/</a></p> <p data-bbox="894 1329 1208 1824">Phil Mellor, Paul Wheatley, and Derek Sergeant, "Migration on Request, a Practical Technique for Preservation," CaMiLEON report from 2002. <a href="https://eprints.whiterose.ac.uk/3757/1/wheatley_p1_MigrationOnRequest.pdf">https://eprints.whiterose.ac.uk/3757/1/wheatley_p1_MigrationOnRequest.pdf</a></p> <p data-bbox="894 1871 1208 1906">Kam Woods and</p>	

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
				Geoffrey Brown, "Migration Performance for Legacy Data Access," International Journal of Digital Curation 3(2), 2008. <a href="http://www.ijdc.net/index.php/ijdc/article/viewFile/88/59">http://www.ijdc.net/index.php/ijdc/article/viewFile/88/59</a>	

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
Ten	Oct 30	<p><b>Web and Social Media Archiving</b></p> <p>Archive-It  Conifer  Archiving: Websites, Twitter (X), Facebook, etc.  Risks of digital archives</p>	<p>Experiment with tools mentioned above</p>	<p><b>Required:</b></p> <p>Conifer - <a href="https://conifer.rhizome.org/">https://conifer.rhizome.org/</a></p> <p>Archive-It - <a href="https://www.archive-it.org/">https://www.archive-it.org/</a></p> <p>From archive to analysis: accessing web archives at scale through a cloud-based interface - <a href="https://link.springer.com/article/10.1007/s42803-020-00029-6">https://link.springer.com/article/10.1007/s42803-020-00029-6</a></p> <p>Learning Lessons from the Cyber-Attack: British Library cyber incident review: <a href="https://www.bl.uk/home/british-library-cyber-incident-review-8-march-2024.pdf/">https://www.bl.uk/home/british-library-cyber-incident-review-8-march-2024.pdf/</a></p> <p>British Library reveals £400,000 plan to rebuild after "catastrophic" ransomware attack - <a href="https://www.thestack.technology/british-library-ransomware/">https://www.thestack.technology/british-library-ransomware/</a></p>	<p><b>Final Project Part 1 DUE</b></p>
Eleven	Nov 6	<p><b>ELECTION RECOVERY</b></p>	<p><b>CRAFTS</b></p>		

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
Twelve	Nov 13	<p><b>Email Archiving</b></p> <p>ePADD TOMES RATOM, etc</p>	<p>Experiment with ePADD; please have ePADD downloaded to your laptop before class</p>	<p><b>Required:</b></p> <p>Email Archives: Building Capacity and Community, University of Illinois, <a href="https://emailarchivesgrant.library.illinois.edu/blog/">https://emailarchivesgrant.library.illinois.edu/blog/</a></p> <p>ePADD - <a href="https://library.stanford.edu/projects/epadd">https://library.stanford.edu/projects/epadd</a></p> <p>RATOM - <a href="https://ratom.web.unc.edu/">https://ratom.web.unc.edu/</a></p> <p>TOMES - <a href="https://www.ncdcr.gov/t-hings-know/records-management/transforming-online-mail-embedded-semantics-tomes">https://www.ncdcr.gov/t-hings-know/records-management/transforming-online-mail-embedded-semantics-tomes</a></p> <p>One Size Does Not Fit All: Exploring Email Archiving Workflows - <a href="https://cdr.lib.unc.edu/concern/masters_papers/6q182r649?locale=en">https://cdr.lib.unc.edu/concern/masters_papers/6q182r649?locale=en</a></p>	

Week	Date	Class Topic	In-Class Exercise	Readings	Assignment Due
Thirteen	Nov 20	Conferences in the field Writing and publishing Job applications and processes Brainstorm - future of digital archives		<b>Required:</b> What's Wrong with Digital Stewardship: Evaluating the Organization of Digital Preservation Programs from Practitioners' Perspectives - <a href="https://elischolar.library.yale.edu/jcas/vol7/iss1/13/">https://elischolar.library.yale.edu/jcas/vol7/iss1/13/</a>	<b>Final Project Part 2 DUE</b>
Fourteen	Nov 27	THANKSGIVING			
Fifteen	Dec 4	Final Presentations	Presentations		

## Pre-Requisites for the Course

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Prerequisite: Graduate standing and consent of instructor.

## Learning Outcomes

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At the conclusion of this course, students will be able to:

- Students will be able to identify the digital preservation needs and practical repository goals based on the type of institution
- Students will be able to determine the best tactics to preserve file formats for long-term sustainability
- Students will be able to complete an electronic records transfer from a transferor while guaranteeing its authenticity

- Students will be able to discuss varying kinds of metadata and its practical application to digital preservation and access
- Students will be able to review situations to determine whether emulation is the best tactic for preserving content and/or providing access
- Students will be able to invoke command-line tools successfully
- Students will be able to preserve a website
- Students will be able to identify resources and independently learn how to solve complex digital preservation problems not covered in this course
- Students will be able to identify the key components that make up a digital repository program

## Grading Policy

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This course does not use a curved grading scheme. See below for the points breakdown, note that plus (+) grades are used for certain ranges but minus (-) is not used.

Grade breakdown for class

Grade	Cutoff
A	94%
A-	90%
B+	87%
B	84%
B-	80%
C+	77%
C	74%
C-	70%
D+	67%
D	64%
D-	60%
F	<60%

### LATE WORK AND MAKING UP MISSED WORK

No late assignments will be accepted. Assignments are due when noted in the syllabus. Additional time to complete an assignment may be allowed under out of the ordinary circumstances. If you need additional time please contact me to discuss



whether it can be allotted. Otherwise, 5% of your total grade for that portion of the assignment will be deducted for every day the assignment is late.

(For example: Student X does not request and then receive special allowances for an assignment to be turned in late. Student X turns in the assignment 2 days late. If the assignment is worth 20 points, the maximum grade they can receive is 18 points.)

## Overview of all Major Course Requirements and Assignments

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The following table represents how you will demonstrate your learning and how we will assess the degree to which you have done so.

Assessment Overview

Assignments	Points Possible	Percent of Total Grade
1. Each student is responsible for selecting one (1) article within the Library and Information Science Source (LISS) database on a topic of their choice. The paper will reflect the search process, why the paper was chosen, a summary of the paper, and overall thoughts on the paper and how it applies to the field.	35	35%
2. Participation/Attendance/Discussion: Allowance can be made for up to two absences, extended absences for extenuating personal or health-related issues can be accommodated but should be discussed.	20	20%
3. Lightning talk presentation on class-related topic of choice. Part 1 - check in and outline	15	15%
4. Lightning talk presentation on class-related topic of choice. Part 2 - slides for presentation and presentation	30	30%

## Required Course Materials

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None

## Final Exam Date and Time

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Instead of a final exam, you will have a final project in the form of a lightning presentation to the class. This will account for 30% of your grade.

## Notice of Academic Accommodations from Disability and Access (D&A)

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### **Accessible/Compliant Statement:**

If you are a student with a disability, or think you may have a disability, and need accommodations please contact Disability and Access (D&A). You may refer to D&A's website for contact and more information: <http://community.utexas.edu/disability/>. If you are already registered with D&A, please deliver your Accommodation Letter to me as early as possible in the semester so we can discuss your approved accommodations.

### **Accessible, Inclusive, and Compliant Statement:**

The university is committed to creating an accessible and inclusive learning environment consistent with university policy and federal and state law. Please let me know if you experience any barriers to learning so I can work with you to ensure you have equal opportunity to participate fully in this course. If you are a student with a disability, or think you may have a disability, and need accommodations please contact Disability and Access (D&A). Please refer to D&A's website for contact and more information: <http://community.utexas.edu/disability/>. If you are already registered with D&A , please deliver your Accommodation Letter to me as early as possible in the semester so we can discuss your approved accommodations and needs in this course.

## Counseling and Mental Health Center (CMHC)

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Students who are struggling for any reason and who believe that it might impact their performance in the course are urged to reach out to Bryce Moffett if they feel comfortable. This will allow her to provide any resources or accommodations that she can. If immediate mental health assistance is needed, call the Counseling and Mental Health Center (CMHC) at 512-471-3515 or you may also contact Bryce Moffett, LCSW (iSchool CARE counselor) at 512-232-4449. Bryce's office is located in FAC18S and she holds drop in Office Hours on Wednesday from 2-3pm. For urgent mental health concerns, please contact the CMHC 24/7 Crisis Line at 512-471-2255.

## Important Safety Information

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### **Carrying of Handguns on Campus**

Students in this class should be aware of the following university policies related to Texas' Open Carry Law:

- Students in this class who hold a license to carry are asked to [review the university policy regarding campus carry](#).
- Individuals who hold a license to carry are eligible to carry a concealed handgun on campus, including in most outdoor areas, buildings and spaces that are accessible to the public, and in classrooms.
- It is the responsibility of concealed-carry license holders to carry their handguns on or about their person at all times while on campus. Open carry is NOT permitted, meaning that a license holder may not carry a partially or wholly visible handgun on campus premises or on any university driveway, street, sidewalk or walkway, parking lot, parking garage, or other parking area.

## University Policies and Resources for Students Canvas Page

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This Canvas [page](#) is a supplement to all UT syllabi and contains University policies and resources that you can refer to as you engage with and navigate your courses and the university.