

Professor Craig Ball

University of Texas Schools of Computer Science, Information Science and Law

Class meets Wednesdays, 3:45 - 6:30 pm

Course Description:

The trial lawyer's craft lies in marshaling the evidence. Evidence is information; and, apart from testimony, nearly all information is created, collected, communicated and stored electronically. Thus, the ability to identify, preserve, interpret, assess, authenticate and challenge electronically stored information is a crucial advocacy skill.

Students will explore information technology (IT) and digital evidence through the lens of trial practice. You will learn the language of IT and acquire hands-on training in the terminology and tools of electronically stored information (ESI), and computer forensics. We will explore information management and storage and the myriad forms ESI takes as it bears on emerging standards of lawyer competency. You will use online tools and industry-standard software employed in electronic evidence processing. We will cover challenges of acquisition, authenticity and admissibility unique to modern digital evidence. You will read, write and work hard to succeed in this course, but with as much help as you seek. I will answer your questions, happily go over material you find unclear, supply review sessions and study guides and afford as much access and support as you demand to aid your efforts to excel.

Workload: Some students struggle with the workload in this class, so let me up front about that. *This isn't like other law school classes.* There is work to do for every class. There are multiple moving parts in terms of the readings, lectures, exercises and semi-weekly quizzes. This class is *not* geared to a single final exam; in fact, more than half of your final grade is earned *before* our last class. So, if your schedule demands that you coast then cram, this is not the class for you. On the other hand, if you are organized and stay on top of things week to week, the workload won't be unmanageable, and you'll always know where you stand.

Prerequisites: Law students should have completed Federal Civil Procedure to take this course. Students from other schools will gain a basic grasp of the scope of discovery and discovery procedure under the Federal Rule of Civil Procedure as amended effective December 1, 2015. I will supply the relevant provisions of the FRCP in your Workbook. You must have access to a computer with a USB port and the internet to complete the exercises. *The course will have a substantial information technology component, but you do not need any prior background in technology or computer science to succeed.* Some of my most successful students weren't remotely tech savvy at all when they enrolled.

Note to Non-Law Students: Some of you join from the Information and Computer Science Schools and might worry that the law-centric aspects of the course put you at a disadvantage. Yes, you'll need to learn some law, and the law students must learn some tech. Law and technology enjoy equal stature in this course, so you may have a leg up for the tech material. *I will endeavor to make all the material accessible to all the class.* I hope to learn from all of you.

Office hours: My email is craig@ball.net and my cell phone number is 713-320-6066. I've isolated in New Orleans during the pandemic and, as an adjunct professor, I don't have an office at the law school from which to offer fixed office hours; however, I'm pleased to set up time for a conference at mutually convenient times, or feel free to let me know you'd like to talk. **I'm here to help you succeed**, and you shouldn't be reluctant to seek assistance or guidance. *My time is your time.*

Faculty Assistant: My faculty assistant is Anthony Nichols. His office is SAC 6.283, and his phone is 232-1250. His e-mail address is anichols@law.utexas.edu.

Required Text:

There is no required commercial text for the class this semester. Your readings will be supplied to you in the Files area of Canvas. Our principal text is something I wrote for you called *Electronic Evidence Workbook 2022 (ver. 22-0404; "Workbook")*. Accordingly, you should incur no expense unless you elect to print the class materials on pressed dried tree paste. You may print anything for your personal use. Readings may be added or substituted over the course of the semester as new decisions and commentaries emerge or as other considerations (like new tools or exercises) dictate; so, remember to check the Class Announcements and the latest Syllabus. I will endeavor not to make material changes to the Syllabus.

Guest Lecturers: As our progress permits, leading jurists and commentators in the field will visit with you in class by videoconference. Students are expected to be prepared to pose thoughtful questions to our guests, and the exams may test on their contributions.

Grading: Plus and minus grades will be employed.

1. Attendance, Preparation and Participation (5%). I strongly encourage regular classroom attendance and make it a component of your grade. You are required to complete assignments before class begins and be prepared for and participate in class discussions and class exercises. I will strive to arrive prepared and engaged with respect to the material, and I ask the same of you please. If you know you're going to be absent, I appreciate your letting me know so that I can help you keep up with what you miss

To be deemed "in attendance," you should have your camera on during Zoom classes. I understand there may be occasions when you cannot turn on your camera, and in those instances, I will endeavor to call on you to ascertain that you are present and engaged. This is not punitive; it's intended as an accommodation.

Visiting Professor Presentations: The Latin maxim *docendo discimus* means "by teaching, we learn." You will learn some of the material we cover by teaching it to your classmates.

In most classes later in the semester, one or two students will be assigned to instruct the class as "Visiting Professors" respecting exercises and readings. Visiting professor duties are assigned in the Syllabus but may be changed with reasonable notice. *The constructive and creative use of supporting visuals (i.e., effective PowerPoint presentation) is strongly encouraged*; however, the most important consideration is the substantive content and clarity of your presentation in conveying the topic only insofar as it bears on electronic evidence. These presentations generally last no longer than 10-15 minutes exclusive of discussion and depending upon the complexity of the topic. You are encouraged to involve your classmates in discussion, and I typically question you or offer observations to ensure that the takeaways I deem essential are covered.

2. Exercises (25%). There will be frequent exercises assigned as homework assignments or as in-class activity during the semester. *These are an important differentiating feature of this course*, and some are demanding. Accordingly, they factor heavily into your final grade. You must turn in each exercise required to be submitted in a timely manner to get credit for the assignment.

3. Self-administered Quizzes (30%). There will be five floating, closed book quizzes that you will take online throughout the semester (governed by the Honor Code, one attempt only).

4. Final Examination (40%). The final is a proctored, closed book exam using Exam4 software on May 7. Please note that ALL students—including those in the non-Law cross-listed sections—will be required to pay for the Exam4 software (\$20 fee). The contemplated exam will include essay and multiple-choice questions. The examination will be based upon the reading assignments, exercises, lectures and class discussions.

Course Objectives and Learning Outcomes: I aspire to help you acquire the practical and analytical skills that will equip you to:

1. Appreciate the challenges and advantages distinguishing conventional paper documentary evidence from the myriad forms of electronic evidence;
2. Know the stages of the Electronic Discovery Reference Model;
3. Identify sources of potentially responsive electronically stored information (ESI) and create a data map;
4. Understand the crucial role metadata plays in organizing, culling and authenticating ESI;
5. Gauge the importance and suitability of the form or forms of production;
6. Scope and implement a defensible legal hold while guarding against undue expense or burden;
7. Apply the e-discovery caselaw and Rules of Evidence and Procedure as effective advocacy tools;
8. Prepare for and participate in a FRCP Rule 26(f) conference;
9. Know the shortcomings of conventional electronic search and consider alternatives;
10. Anticipate issues that commonly prompt sanctions and how to guard against them;
11. Learn to deal with privileged content and inadvertent disclosure (e.g., FRE 502);
12. Grasp the framework of cost-shifting and -allocation;
13. Prepare to assert and defend challenges grounded on privacy and proportionality;
14. Use tools to analyze, search, process and produce electronically stored information in litigation;
15. Make more effective use of visual persuasion; and
16. Be undaunted by the variety, complexity and numerosity of big data in litigation, instead learning to cull, sample, test and challenge ESI in ways that will afford you the confidence to secure the many benefits of digital evidence and the competence to deploy discovery sensibly, ethically and strategically.

E-discovery is an area where veteran attorneys have little experience and so have little to pass on to young lawyers. Many skilled litigators are overwhelmed and require help when it comes to e-discovery. They expect new lawyers to be more tech-savvy and fluent in information technology, and they esteem such knowledge and skills in their hiring decisions.

Students with Disabilities: 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 Services for Students with Disabilities (SSD). Please refer to SSD's website for contact and more information: <http://diversity.utexas.edu/disability/>. If you are already registered with SSD, 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. Because the law school operates on a blind grading system, accommodations are coordinated through the Student Affairs Office. Faculty members are included in the process only when needed to implement classroom accommodations; so, when I set the time for you to complete an online quiz, I may not be aware that you have been afforded extra time or other accommodations. *Please be sure that SSD and/or SA offices let me know.*

Personal Names and Pronouns: Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or preferred pronoun. Please advise me of this early in the semester so that I may make appropriate changes to my records. If I mistakenly mispronounce your name or fail to use your preferred pronoun, please don't hesitate to correct me as I want to get it right.

Social Evenings: I like to get to know my students and help them get to know one another. It's been my custom over the course of the last decade to invite all students (plus ones welcome) to be my guests for drinks and/or dinner at a local restaurant. The pandemic has made that challenging, but if the opportunity to do so safely presents, I hope your schedule allows you to join. These evenings are solely for your enjoyment; so, participation in a social evening is entirely optional.

Assignments: The assignments below list readings and exercises in the weekly reading folders on Canvas and in the Workbook, unless otherwise indicated. Students are expected to read each assignment carefully before class, complete each exercise and timely submit your work and be prepared to discuss the salient points of covered concepts and cases.

#	Class Date	Topics	Required Reading and Assignments
1	January 19	Tools of Discovery Competency Introduction to EDRM Data Storage Media	Workbook: a. Read pp. 1-59 Complete Exercise 1, p. 59 Once you complete your Workbook reading, please watch the ten-minute video here: https://www.youtube.com/watch?v=oyWsdS1h-TM and the four-minute video here: https://d34zi8nxray0rk.cloudfront.net/102695601-240.mp4
2	January 26	Metadata Green v. Blitz Sedona Principles	Workbook: Read pp. 60-95 Complete Exercises 2, 3 and 4, pp. 82-95 Canvas: <i>Green v. Blitz</i> w/ Preface (14 pp.) THE SEDONA PRINCIPLES: THIRD EDITION, <i>pages 51-53 only</i>
3	February 2	Computer Forensics Processing and Encoding In Re: Weekley Homes	Workbook: Read pp. 96-159 Review TRCP Rule 196.4 p. 566 Complete Exercises 5 and 6, pp. 144-159 Canvas: <i>In Re: Weekley Homes</i>
	Noon 2/3/22 – noon 2/7/22	FIRST QUIZ	First self-administered quiz goes live at NOON (CST) Thursday, February 3, 2022. You may take the quiz online at any time you prefer beginning from noon 2/3/22 through 11:30am on Monday, February 7, 2022. It is a CLOSED BOOK, CLOSED NOTES, NO INTERNET, NO HELP quiz. Do not to click outside of the test window once you begin.
4	February 9	Encoding & Steganography Processing, part 2	Workbook: Read pp. 160-219

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		Deduplication	Complete Exercises 7, 8 and 9, pp. 168-211
5	February 16	Big Six Preservation Letters Checklist of Sources The Zubulake Decisions	Workbook: Read pp. 220-250 Complete Exercises 10 and 11 Canvas: <i>Zubulake Cases I-V with Preface, focus on decisions I and III</i>
	Noon 2/17/22 - noon 2/21/22	SECOND QUIZ	Second self-administered quiz goes live at NOON (CST) Thursday, February 17, 2022. You may take the quiz online at any time you prefer beginning from noon 2/17/22 through 11:30am on Monday, February 21, 2022. It is a CLOSED BOOK, CLOSED NOTES, NO INTERNET, NO HELP quiz.
6	February 23	Data Mapping Backup Systems Databases	Workbook: Read pp. 251-308 Complete Exercise 12
7	March 2	E-Mail	Workbook: Read pp. 309-359 Complete Exercises 13-14 Watch the 5-minute video here: https://www.youtube.com/watch?v=enQ-zrNSSM4 Read this animated graphic: https://animagraffs.com/hard-disk-drive/
	Noon 3/3/22 - noon 3/7/22	THIRD QUIZ	Third self-administered quiz goes live at NOON (CST) Thursday, March 3, 2022. You may take the quiz online at any time you prefer beginning from noon 3/3/22 through 11:30am on Monday, March 7, 2022. It is a CLOSED BOOK, CLOSED NOTES, NO INTERNET, NO HELP quiz.
8	March 9	Preserving: Mobile Evidence Social Media Content	Workbook: Read pp. 372-397 Complete Exercise 16 Watch this 18-minute video: https://www.youtube.com/watch?v=5Mh3o886qpg I won't hold you responsible for technical minutiae, but please absorb the general way in which data is stored as charges, the use of massive arrays interrogated as pages and the nanoscale of the entire assembly.
	March 14-18		SPRING BREAK
9	March 23	Forensic Imaging Legal Hold Hold Trigger Events Ephemeral Data Possession Custody or Control Columbia Pics v. Bunnell In Re: NTL Rambus v Hynix	Workbook: Read pp. 360-371; 398-399 Complete Exercise 15 Canvas: <i>Columbia Pictures v. Bunnell</i> with Preface; <i>In Re: NTL Securities Litigation</i> (pp. 17-20 only re: control) <i>Hynix v. Rambus</i> w/ Preface The Sedona Conference Commentary on Rule 34 and Rule 45 "Possession, Custody, or Control" (pp. 475-527 only) Yunus Aricanli will be visiting prof. for Columbia Pictures v. Bunnell

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10	March 30	Processing Search and Review <i>U.S. v O'Keefe</i> <i>Victor Stanley I</i> <i>Maurer v. Sysco Albany LLC</i>	Workbook: We are using new Workbook Ver. 22.0404 from this point forward. All further reading assignments and Exercise numbers reference the new Workbook! Read pp. 400-411 <i>Complete Exercises 17A and 17B</i> (these are processing and production exercises, NOT drafting exercises as in old Workbook) Canvas <i>U.S. v O'Keefe</i> <i>Victor Stanley I</i> Fordham JOLT article re keyword search issues <i>Maurer v. Sysco Albany LLC</i> w/Preface Mason Blaylock will be Visiting Professor for <i>Rambus v. Hynix</i> Helen Brantley will be Visiting professor on <i>Maurer v Sysco Albany</i>
	Noon 3/31/22-noon 4/4/22	FOURTH QUIZ	Fourth self-administered quiz goes live at NOON (CST) Thursday, March 31, 2022. You may take the quiz online at any time you prefer beginning from noon 3/31/22 through 11:30am on Monday, April 4, 2022. It is a CLOSED BOOK, CLOSED NOTES, NO INTERNET, NO HELP quiz.
11	April 6	Search and Review (Cont.) Forms of Production <i>Anderson Living Trust</i> <i>In re: State Farm Lloyds</i>	Workbook: Read pp. 413-439 <i>Complete Exercises 18 (all subparts 1-17) and 19</i> Canvas: <i>Anderson Living Trust</i> <i>In re: State Farm Lloyds</i> Kessler, The Myth of Native Production with Ball Preface Beau Butler will be Visiting Professor for <i>In re: State Farm Lloy</i> Joseph Cantu will be Visiting Professor for <i>Anderson Living Trust</i>
12	April 13	Spoilation and Sanctions <i>Fast v. GoDaddy.com</i> <i>Brookshire Brothers</i>	Workbook: Read pp. 440-472 <i>Complete Exercise 20</i> Canvas: <i>Fast v. GoDaddy.com</i> <i>Brookshire Brothers</i> decision (TxS.Ct.) Rodriguez_Brookshire Bros. Article Jason Elgersma will be visiting professor for <i>Fast v. GoDaddy</i> Roy Falik will be Visiting Professor for <i>Brookshire Brothers</i>.
13	April 20	TAR and Predictive Coding <i>Rio Tinto v. Vale</i> <i>DaSilva_Moore</i> <i>Prof. Maura Grossman to speak to us today.</i>	Workbook: Read pp. 473-479 (and Appendix A) <i>Complete Exercise 21: Legal Hold Drafting Exercise Part 1: Memo</i> Canvas: TAR_Cormack_Grossman_Practical Law article <i>Rio Tinto v. Vale</i> <i>DaSilva_Moore_11_civ_1279_Opinion_20120224</i> Grimm, Capra, Joseph, <i>Authenticating Digital Evidence</i> , pp. 1-28

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			Kay Goldberg will be Visiting Professor for DaSilva Moore AND Rio Tinto (TAR issues only)
	Noon 4/21/22-noon 4/25/22	FIFTH QUIZ	Fifth and last self-administered quiz goes live at NOON (CST) Thursday, April 21, 2022. You may take the quiz online at any time you prefer beginning from noon 4/21/22 through 11:30am on Monday, April 25, 2022. It is a CLOSED BOOK, CLOSED NOTES, NO INTERNET, NO HELP quiz.
14	April 27	Rule 26(f) conferences Final Exam Review Judge Paul Grimm to speak to us today	Workbook: Read pp. 480-491 Complete Exercise 21: Legal Hold Drafting Exercise Part 2: Notices Canvas: FRE Rule 502 Grimm, Capra, Joseph, <i>Authenticating Digital Evidence</i> , pp. 29-55 Riley Green will be Visiting Professor on FRE Rule 502
	May 7, 2022	FINAL EXAM	PROCTORED FINAL at LAW SCHOOL