

## Syllabus

**Professor:** **Shawn Davis**

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**Course Catalog Description:** In this course, students learn the fundamental principles and concepts in the conduct of investigations in the digital realm. Students will learn the process and methods of obtaining, preserving and presenting digital information for use as evidence in civil, criminal, or administrative cases. Topics include legal concepts and terminology, ethics, computer crime, investigative procedures, chain of custody, digital evidence controls, processing crime and incident scenes, data acquisition, e-mail investigations, applicable case law, and appearance as an expert witness in a judicial or administrative proceeding. **Prerequisites:** ITMS 538 Cyber Forensics; **Credit:** 3-0-3 Semester Hours

**Course Outcome:** Each successful student will demonstrate foundation knowledge and application of digital evidence and e-discovery concepts as they apply to the investigation of computer crimes and cyber security incidents in a large organizational environment. Students will describe and identify policy frameworks, legal and moral implications, and best practices in the collection, processing and presentation of digital evidence. Students will be able to conduct digital investigations in full compliance with applicable law, policy, and regulations, and present the investigative results as an expert witness.

**Lecture Days, Time & Place:** Mondays, 6:25pm – 9:05pm, Hermann Hall, Room 002

**Schedule of Topics/Readings:** *You should do all readings prior to class.*

| Session      | Date        | Topic   | Reading   |
|--------------|-------------|---|-----------|
| 1            | January 12  | Introduction to Legal Concepts and Terminology  |           |
| 2            | January 19  | <b>NO CLASS: Martin Luther King, Jr. Day</b><br><b>Video lecture will be posted – Topic TBA</b> |           |
| 3            | January 26  | Introduction to Digital Evidence<br><i>Research paper topics due</i>                            | Chapter 1 |
| 4            | February 2  | Digital Evidence Case Law   | Chapter 8 |
| 5            | February 9  | History and Ethics of E-discovery and Digital Evidence  | Chapter 2 |
| 6            | February 16 | Planning and Tools<br><i>Research paper outline due</i>   | Chapter 3 |
| 7            | February 23 | Experts in Digital Evidence and E-Discovery   | Chapter 4 |
| 8            | March 2     | Digital Evidence Case Flow<br><i>Research paper bibliography due</i>                            | Chapter 5 |
| 9            | March 9     | Case Study: From Beginning to Trial   | Chapter 6 |
| 10           | March 16    | <b>NO CLASS: Spring Break Week</b>  |           |
| 11           | March 23    | Project Definition and Parameters   | Online    |
| 12           | March 30    | Presenting Digital Evidence in Court  | Online    |
| 13           | April 6     | Information Governance and Litigation Preparedness<br><i>Research paper due</i>                 | Chapter 7 |
| 14           | April 13    | The Future of Digital Evidence /Exam Review   | Chapter 9 |
| 15           | April 20    | Project Class Presentations   |           |
| 16           | April 27    | Project Class Presentations   |           |
| Finals May 4 |             | Final Examination as per the IIT Final Exam schedule  |           |

**Textbook:** The textbook for this course is **optional**. Previous editions are not acceptable.

Phillips, Amelia; Godfrey, Ronald; Steuart, Christopher; Brown, Christine: *E-discovery: An Introduction to Digital Evidence*, Course Technology Incorporated, 2014, ISBN 9781111310646;  
an eBook version is available at <https://www.vitalsource.com/referral?term=9781285961286>

**Readings/Videos:** I recommend reading the textbook chapters (assigned by topic above) prior to each class but the textbook and reading are optional. The most important material comes from class lectures and the slide decks that will be posted after each class. Please review the slide decks (and watch the lecture videos if you are an online student or have missed in person class). Online resources will be linked from Canvas or will be posted on Canvas.

**Graduate Student Course Objectives:** At the conclusion of this course, each successful student will able to:

- ◆ Acquire, process, preserve, evaluate, and present digital evidence in a forensically and legally sound manner.
- ◆ Explain laws, theories, techniques, and practices that apply to digital forensic investigations.
- ◆ Identify and explain types of computer and Internet crimes.
- ◆ Preserve and process a crime scene involving digital evidence.
- ◆ Prepare a detailed research paper on a state or federal law
- ◆ Explain the legal procedures and standards in the collection and analysis of digital evidence.
- ◆ Prepare a report of a digital investigation for appropriate stakeholders and defend your findings.
- ◆ Present an analysis of digital evidence in a legal or administrative proceeding as an expert witness.
- ◆ Serve as a group leader during presentations and projects

**Course Notes:** Copies of the course lecture notes in the form of a PDF of the PowerPoint presentation accompanying each lecture will be provided for each student on Canvas. This should be useful if you must miss a class. You should be aware that note taking is encouraged and should help your understanding of the material.

**Course Web Site:** <http://portal.iit.edu/>

**Canvas:** The course will make intensive use of Canvas within the IIT Portal for communications, assignment submissions, group project coordination, providing online resources and administering examinations. All remote students will view the course lectures online via Canvas, and online readings will be found on Canvas as well.

**Attendance: /Participation:** Attendance is mandatory for all students in the live section of the course. If you will not be able to attend a class, you must notify me via email prior to class time in order for the absence to be considered excused. Students are allowed two excused absences from class sessions over the course of the semester without penalty. Any other absences will deduct from your class attendance/participation grade (which is weighted as 10% of your course grade). Students that miss a class are responsible for watching that class video.

Live section students should always bring their laptop to class each session in the event we may have an in-class lab or want to review online material.

A main component of this course will include discussing your thoughts and opinions on the various laws, rules, and topics we will cover. Please participate in lectures which will make class more fun and interactive.

While there may be a live stream for the online section of the course, online students are responsible for watching the class videos posted after the class.

**Assignments:** There will be two main assignments for this class. Homework assignments must be turned in on time before midnight on the due date in order for the student to receive full credit. For Assignment 1 items: 5% of the homework value (based on the full point value possible for the assignment) will be deducted for each day the homework assignment is submitted after the due date, up to one week maximum. Assignment 1 will not be accepted for credit if submitted later than one week after the original due date. Assignment 2 is a presentation-based project that is due near the end of the semester and will not be accepted for credit past the due date. **There are no exceptions to these rules.**

**Assignment 1:** Each student will need to pick a particular state or federal law relating to technology and then will write a research paper discussing the law as well as highlighting major cases and their outcomes through district, appellate, and supreme court decisions as well as the student's opinions on how the law may need to be updated or changed due to current advances in technology.

The paper shall be in APA format (double-spaced) and should contain 8-10 pages of content for graduate students. The 8-10 page count does not include the title, abstract, and references pages, and will meet standards expected of a paper submitted for journal publication. Instructions for submission of the paper as well as a grading rubric will be included with the assignment on Canvas.

You must fully attribute and cite all material either directly quoted or paraphrased in your paper with in-text citations as well as document all cited sources within your paper's References section.

Additionally, you must document all sources used in the preparation of the paper (even if they are not directly used in your final paper) using a separate complete Bibliography page. *Failure to both include and format your References and Bibliography entries in APA style will result in an automatic reduction of one letter grade for this assignment.*

Use of direct quotes should be limited within your paper and no more than fifteen percent of material included in any paper may be direct quotes. No more than sixty percent of the resources cited may be from online materials. However, online ebooks that have a corresponding print version and PDF files located online count as—and should be cited as—print sources. *Wikipedia* may not be used as a reference or cited. Submission of the paper for actual publication is highly encouraged.

Your top three picks of state or federal laws related to technology that you would like to write your paper on along with a brief description of each law will be due by 1/26. I will then get back to you shortly after with the law that you will write about. A basic outline for your paper—which should be 2-3 pages in length—will be due by 2/16; a preliminary bibliography will be due by 10/18. The final paper will be due by 4/6.

**Assignment 2:** A digital evidence project conducted in teams, to be defined and assigned via a Canvas entry. The project will be due before the class presentations.

**Examinations:** The final examination will consist of a written exam with details TBD.

**Academic Honesty:** All work you submit in this course **must be your own.**

*Generative AI:* You may not use Generative AI for quizzes, quizzes, exams, or for creating the content of assignments. I will provide specific parameters with each assignment regarding how generative AI may be used for other purposes such as grammar.

*Plagiarism:* You must fully attribute **all** material directly quoted and paraphrased in papers with in-text citations and you must document all sources used in the preparation, as well as referenced in the paper, using complete, APA-style bibliography and Reference entries respectively. Including directly quoted or paraphrased material without attribution is always considered plagiarism and will always be treated as such by me.

*Plagiarizing by Paraphrase:* When a student includes writing in their paper that is either: 1) based on knowledge gained from a source, 2) substitutes words and sentences from a source, or 3) changes the order of words and sentences from a source but keeps the meaning of the original, a citation is required. In the example given below, the original is on the top. The paraphrase on the bottom constitutes plagiarism. The student writer could avoid plagiarism in the bottom example by acknowledging the source with a proper in-text citation and providing a proper APA References page entry.

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Original: It is not generally recognized that at the same time when women are making their way into every corner of our work-world, only one percent of the professional engineers in the nation are female. A generation ago, this statistic would have raised no eyebrows, but today, it is hard to believe.

Paraphrase: Few people realize now that women are finding jobs in all fields, that a tiny percentage of the country's engineers are female. Years ago this would have surprised no one, but now it seems incredible.

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*Mosaic Plagiarism:* Here the writer lifts phrases and terms from the source and embeds them in his or her own prose. An example follows in which the lifted phrases are underlined:

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The pressure is on to get more women into engineering. The engineering schools and major corporations have opened wide their gates and are recruiting women zealously. Practically all women engineering graduates can find attractive jobs. Nevertheless, at the moment, only one percent of the professional engineers in the country are female.

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Mosaic plagiarism is sometimes caused by careless note taking. However, it looks dishonest and is judged as such. The use of quotation marks around the original wording and citation avoid the problem of plagiarism. Often a better approach is to use paraphrase or to quote directly—with appropriate citations.

If you submit plagiarized material or material generated by AI, you **WILL** receive a grade of **ZERO** for the assignment, an Academic Honesty Violation Report will be filed, and it may result in your expulsion from the course with a failing grade as per the IIT and ITM academic honesty policies. **There is no excuse for not understanding this policy** and if you do not understand it, please let me know and I will be happy to discuss it with you until you do.

**Collaboration:** Students may only collaborate on assignments or projects that are explicitly designated as group assignments or projects. Students should **not** collaborate on the research paper for this course. Students within a group project may collaborate with each other on their own group project but members within one group should not collaborate with members of other groups.

Students submitting work that is identical or in some cases even substantively the same will be asked to discuss the assignment with me. If one student admits to having copied the work, or if there is clear evidence who is guilty, the guilty student will be assigned a grade of zero. If no one admits to the offense or a reasonable determination of guilt cannot be made, each student involved will be assigned a grade of zero. In either case, an Academic Honesty Violation Report will be filed, and it may result in your expulsion from the course with a failing grade as per the IIT and ITM academic honesty policies.

**Grading:** Grading criteria for ITMS 583 students will be as follows:

|  |           |
|--|-----------|
| A Outstanding work reflecting substantial effort .....                       | 90-100%   |
| B Adequate work fully meeting that expected of a graduate student .....      | 80-89.99% |
| C Weak but marginally satisfactory work not fully meeting expectations ..... | 65-79.99% |
| E Unsatisfactory work .....  | 0-64.99%  |

The final grade for the class will be calculated as follows:

|                                      |     |
|--------------------------------------|-----|
| Assignment 1 .....                   | 30% |
| Assignment 2 .....                   | 30% |
| Final Exam .....                     | 30% |
| Attendance/Class Participation ..... | 10% |

**Other Class Resources:** Online readings and other class resources may be found at on Canvas.

**Our Contract:** This syllabus is my contract with you as to what I will deliver and what I expect from you. If I change the syllabus, I will issue a revised version of the syllabus; the latest version will always be available on Canvas. Revisions to readings and assignments will be communicated via Canvas.

**Disabilities:** Reasonable accommodations will be made for students with documented disabilities. In order to receive accommodations, students must obtain a letter of accommodation from the Center for Disability Resources and make an appointment to speak with me as soon as possible. My office hours are listed on the first page of the syllabus. The Center for Disability Resources (CDR) is located in 3424 S. State St., room 1C3-2 (on the first floor), telephone 312.567.5744 or disabilities@iit.edu.

**Illinois Tech Sexual Harassment and Discrimination Information:** Illinois Tech prohibits all sexual harassment, sexual misconduct, and gender discrimination by any member of our community. This includes harassment among students, staff, or faculty. Sexual harassment of a student by a faculty member or sexual harassment of an employee by a supervisor is particularly serious. Such conduct may easily create an intimidating, hostile, or offensive environment.

Illinois Tech encourages anyone experiencing sexual harassment or sexual misconduct to speak with the Office of Title IX Compliance for information on support options and the resolution process.

You can report sexual harassment electronically at [iit.edu/incidentreport](http://iit.edu/incidentreport), which may be completed anonymously. You may additionally report by contacting the Title IX Coordinator, Virginia Foster at [foster@iit.edu](mailto:foster@iit.edu) or the Deputy Title IX Coordinator, Esther Espeland at [espeland@iit.edu](mailto:espeland@iit.edu).

For confidential support, you may reach Illinois Tech's Confidential Advisor at (773) 907-1062. You can also contact a licensed practitioner in Illinois Tech's Student Health and Wellness Center at [student.health@iit.edu](mailto:student.health@iit.edu) or (312)567-7550

For a comprehensive list of resources regarding counseling services, medical assistance, legal assistance and visa and immigration services, you can visit the **Office of Title IX Compliance** website at <https://www.iit.edu/title-ix/resources>.