



ISP 380: Information Security and Privacy

Instructor

Suzanne Barber

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Hybrid Office Hours

MW 9am to 10am in EER 7.804 and Zoom at <https://utexas.zoom.us/j/5844308231>

Class Meetings

Class will meet 8am to noon on the following dates. For each class meeting, you have the option to meet in-person in Thompson Conference Center (TCC 1.124) or Zoom (meeting links posted on the Canvas page)

- September 6-7
- October 4-5
- October 25-26
- November 15-16
- December 6-7

I. Course Principles

Three Principles will guide my instruction and our class community: Excellence, Kindness, Fairness

II. Reading List

Reference Texts:

- Security in Computing by Charles Pfleeger, Shari Pfleeger, Jonathan Margulies. 5th Edition. Upper Saddle River, NJ: Prentice Hall, 2015. Print ISBN:978-0-13-408504-3 (SC)
- Geekonomics: The Real Cost of Insecure Software by David Rice
- Computer Security: Art and Science by Matt Bishop
- Identity Management: Concepts, Technologies, and Systems (Information Security & Privacy) by Elisa Bertino and Kenji Takahashi
- Collection of selected papers from academic publications, corporate and government reports, and popular press (provided by instructor)

III. Course Aims and Objectives

The course offers an introduction to information security and privacy. Foundational concepts are presented to differentiate security and privacy and explore information value, information liabilities and solutions to secure information and protect privacy. Students will learn about business practices, regulations, public policy, and technologies for both Information security and information privacy. Across a range of market sectors and application domains (e.g. healthcare, telecom, retail, IoT, financial services), the course will examine different types of threats and attacks, methods to detect data incidents and breaches, and respond to and recover from data incidents and breaches while managing risks and maintaining business continuity. Students will also learn to design systems addressing information security and privacy requirements in different operational domain contexts bringing together a combination of technical, social, business, and legal solutions. Ultimately, students will exit the course understanding how to translate security and privacy into a technology and a business driver that is critical to meet an organization's mission.

IV. Grading Deliverables and Evaluation

Student performance will be evaluated and course grades assigned based on:

Research and Comprehension Report #1	10%
Research and Comprehension Report #2	10%
Research and Comprehension Report #3	10%
Research and Comprehension Report #4	10%
Information System Security and Privacy Design Project	60%

Each Research and Comprehension Report will serve as an executive summary in response to class lectures and discussions. Students may be asked to share parts of their report during class on an impromptu basis.

The Information System Security and Privacy Design Project will be delivered incrementally throughout the semester (see Course Schedule for planned due dates). This Information System Security and Privacy Design Project will replace the Final Exam. In other words, this class will NOT have a Final Exam.

Weighted average of the grade components will be used to assign final letter grades. The instructor reserves the right to adjust numeric ranges, provided all adjustments are made fairly and uniformly for the entire class and to the benefit of the student. The following tables are used to convert weighted grade averages to final letter grades. The instructor may use the +/- assignment of letter grades in special cases.

<i>Weighted average of grade components</i>	<i>Letter grade category</i>
90-100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

V. Course Policies

Attendance

Attendance is mandatory and directly related to success in this class. Students must attend classes in-person or remotely via Zoom. While class lectures are recorded in support of students' studies, review of class recordings does not constitute attendance. Only extraordinary, documented requests submitted at least 72 hours in advance of class time will be considered for absences. There must be a compelling reason for any requests not submitted 72 hours in advance of class start. Acceptance of excused absences will be considered by the faculty instructor in consultation with the MSISP Program Director.

Late Deliverables

All deliverables must be submitted no later than the due dates. However, 25% deduction will be allowed for excused, unusual and approved circumstances when a Research and Comprehension Report or Project milestone deliverable is submitted late but within 48hrs of due date. Otherwise, no credit will be given.

Changes to the Course Schedule

Changes to the Course Schedule may be made at instructor's discretion and if circumstances require. It is your responsibility to note these changes when announced (I will do my best to ensure that you receive the changes with as much advanced notice as possible). Please check Canvas on a regular basis and set Canvas notifications to ensure you are aware of all class events since all important class events and changes will be announced in class and posted to Canvas.

VI. Course Website

We will use Canvas System available at <https://canvas.utexas.edu/>.

VII. Course Schedule

The course schedule is subject to change based on the dynamics and needs of the learning experience.

Class Weekend	Course Lecture Topic	Textbook Reading	Assignments/Exams
Sept 6-7		Ch. 1, 3	
	Class Introduction and Introduction to Dr. B Course Overview Project Overview		
	Information Inventory & Classification		
	Information as an Asset (and a Liability)		
	Three Tenets of Information Security - Confidentiality, Integrity, and Availability		
	Difference between security and privacy		
	Vulnerabilities, Threats and Attacks		
Oct 4-5		Ch. 2.1, 2.2, 13.1	<i>DUE: Assignment #1 – Data Inventory, Valuation and Categorization</i>
	Security and Privacy Risk Assessment		
	Trusted Identity? – Identity Construction		
	Trusted Identity? – Lifecycle of an Identity		
	Trusted Identity? – Access Control Models		
	Trust Frameworks: Levels of Assurance		
	Trust Frameworks: Stakeholders and Trust Framework Models		
Oct 25-26		Ch. 10 Ch. 2.1, 2.3	<i>DUE: Assignment #2 - Vulnerabilities and Risks to CIA</i>
	Data Breaches: Detecting and Classifying Events		
	Data Breaches: Incident Response Planning		

	Information System Security and Privacy: Design Principles		
	Information System Security and Privacy: Storing Information Assets (aka Cloud Migration – Yes? No? Hybrid?)		
	Cryptology		
Nov 15-16		Ch. 2.1, 2.3 Ch. 4, 5, 6 Ch. 8 (Ref. Ch. 3, 7) Ch. 9, 11	<i>DUE: Assignment #3 - Information Access and Sharing Controls + Incident Response Plan</i>
	Cryptology (continued)		
	Network Security and Web Security		
	Network Security and Web Security		
	Cloud Security		
	Laws, Regulations and Policies		
Dec 6-7			<i>DUE: Assignment #4- Information Security and Privacy System Designs</i>
	Information Security and Privacy Innovations and Research		

VIII. Other University Notices and Policies

University of Texas Honor Code

The core values of The University of Texas at Austin are learning, discovery, freedom, full participation, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

Academic Integrity

Each student is expected to abide by the UT Honor Code: "As a student of The University of Texas at Austin, I shall abide by the core values of the University and uphold academic integrity." If you use words or ideas that are not your own (or that you have used in a previous class), you must cite your sources. Otherwise, you might be in violation of the university's academic integrity policies. Please see [Student Conduct and Academic Integrity](#).

Discussion of assignments is encouraged; however, you must submit your own independent solutions.

Examinations and Grades

The faculty instructors for each course will determine if exams are necessary as well as exam schedules and grading criteria if exams are included.

Grading

This course must be taken on a letter grade basis. Candidates for the master's degree must have a cumulative GPA of at least 3.00 in core courses. Per University policy, any graduate student whose cumulative grade point average falls below 3.00 at the end of any semester will be placed on scholastic warning status, and must bring their cumulative GPA to at least 3.00 during the next semester, or be subject to dismissal from the program.

Official grade point averages are calculated by the UT Registrar and appear on the student's academic record maintained by the Registrar.

Learning and Growth

Throughout the course, your learning and growth are important. We all need accommodations because we all learn differently, and the current pandemic makes accommodations all the more important. If there are aspects of this course that prevent you from learning or exclude you, please let me know as soon as possible. Together we will develop strategies to meet your needs and the course requirements. I also encourage you to reach out to the UT and MSISP resources available to you. Many are included on this syllabus.

Use of Electronics

To help you connect the pieces of the class together, please focus the use of electronics on the content in lecture.

Video Recordings

Video recording of class activities are reserved for students and TAs in this class only for educational purposes and are protected by [FERPA](#) laws if any students are identifiable in the video. Video recordings should not be shared outside the class in any form. Students violating this university policy could face misconduct proceedings.

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). Here are some [examples](#) of the types of diagnoses and conditions that can be considered disabilities: [Attention-Deficit/Hyperactivity Disorders \(ADHD\)](#), [Autism](#), [Blind & Visually Impaired](#), [Brain Injuries](#), [Deaf & Hard of Hearing](#), [Learning Disabilities](#), [Medical Disabilities](#), [Physical Disabilities](#), [Psychological Disabilities](#) and [Temporary Disabilities](#). Please refer to SSD's [website](#) for contact and more information. 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.

Mental Health Counseling

College can be stressful and sometimes we need a little help. Luckily, we have a wealth of resources and dedicated people ready to assist you, and treatment does work. The [Counseling and Mental Health Center](#) provides counseling, psychiatric, consultation, and prevention services that facilitate academic and life goals and enhance personal growth and well-being. Counselors are available Monday-Friday 8am-5pm by phone (512-471-3515) and Zoom.

If you are experiencing a mental health crisis (e.g. depression or anxiety), please call the Mental Health Center Crisis line at 512-471-CALL(2255). Call even if you aren't sure you're in a full-blown crisis, but sincerely need help. Staff are there to help you.

Student Rights and Responsibilities

You have a right to a learning environment that supports mental and physical wellness.

- You have a right to respect.
- You have a right to be assessed and graded fairly.
- You have a right to freedom of opinion and expression.
- You have a right to privacy and confidentiality.
- You have a right to meaningful and equal participation, to self-organize groups to improve your learning environment.
- You have a right to learn in an environment that is welcoming to all people. No student shall be isolated, excluded or diminished in any way.

With these rights come responsibilities:

- You are responsible for taking care of yourself, managing your time, and communicating with the teaching team and others if things start to feel out of control or overwhelming.

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- You are responsible for acting in a way that is worthy of respect and always respectful of others.
 - Your experience with this course is directly related to the quality of the energy that you bring to it, and your energy shapes the quality of your peers' experiences.
 - You are responsible for creating an inclusive environment and for speaking up when someone is excluded.
 - You are responsible for holding yourself accountable to these standards, holding each other to these standards, and holding the teaching team accountable as well.

Official Correspondence

UT Austin [considers e-mail as an official mode of university correspondence](#). You are responsible for following course-related information on the course Canvas site.

Religious Holy Days

In accordance with [section 51.911 of the Texas Education code](#) and [University policies on class attendance](#), a student who misses classes or other required activities, including examinations, for the observance of a religious holy day should inform the instructor as far in advance of the absence as possible so that arrangements can be made to complete an assignment within a reasonable period after the absence. A reasonable accommodation does not include substantial modification to academic standards, or adjustments of requirements essential to any program of instruction. Students and instructors who have questions or concerns about academic accommodations for religious observance or religious beliefs may contact the [Office for Inclusion and Equity](#). The University does not maintain a list of religious holy days.

Absence for Military Service

In accordance with [section 51.9111 of the Texas Education code](#) and [University policies on class attendance](#), a student is excused from attending classes or engaging in other required activities, including exams, if he or she is called to active military service of a reasonably brief duration. The maximum time for which the student may be excused has been defined by the Texas Higher Education Coordinating Board as "no more than 25 percent of the total number of class meetings or the contact hour equivalent (not including the final examination period) for the specific course or courses in which the student is currently enrolled at the beginning of the period of active military service." The student will be allowed a reasonable time after the absence to complete assignments and take exams.

COVID Guidance and Resources

The University offers resources at <https://coronavirus.utexas.edu/>

Safety Information (<http://www.utexas.edu/safety>)

If you have concerns about the safety or behavior of students, TAs, Professors, or others, call the Behavioral Concerns Advice Line at 512-232-5050. Your call can be anonymous. If something doesn't feel right, it probably isn't. Trust your instincts and share your concerns.

Occupants of buildings are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.

- Familiarize yourself with all exit doors of each classroom and building you may occupy. The nearest exit door may not be the one you used when entering the building.

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- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.
 - In the event of an evacuation, follow the instruction of faculty or class instructors. Do not re-enter a building unless given instructions by the following: Austin Fire Department, UT Austin Police Department, or Fire Prevention Services.
 - Information regarding emergency evacuation routes and emergency procedures.

Sanger Learning Center

More students use the Sanger Learning Center each year to improve their academic performance. All students are welcome to join their classes and workshops and make appointments for their private learning specialists, peer academic coaches, and tutors. For more information, see the [Sanger Web site](#) or call 512-471-3614 (JES A332).

Title IX Reporting

Title IX is a federal law that protects against sex and gender-based discrimination, sexual harassment, sexual assault, sexual misconduct, dating/domestic violence and stalking at federally funded educational institutions. UT Austin is committed to fostering a learning and working environment free from discrimination in all its forms where all students, faculty, and staff can learn, work, and thrive. When sexual misconduct occurs in our community, the university can:

- Intervene to prevent harmful behavior from continuing or escalating.
- Provide support and remedies to students and employees who have experienced harm or have become involved in a Title IX investigation.
- Investigate and discipline violations of the university's relevant policies.

Faculty members and certain staff members are considered "Responsible Employees" or "Mandatory Reporters," which means that they are required to report violations of Title IX to the Title IX Coordinator at UT Austin. **I am a Responsible Employee and must report any Title IX related incidents** that are disclosed in writing, discussion, or one-on-one. Before talking with me, or with any faculty or staff member about a Title IX related incident, be sure to ask whether they are a responsible employee. If you want to speak with someone for support or remedies without making an official report to the university, email advocate@austin.utexas.edu. For more info about reporting options and resources, visit [the campus resources page](#) or e-mail the Title IX Office at titleix@austin.utexas.edu.