

**University of North Texas**  
**Accounting Information Systems –**  
**ACCT 4100**  
**Fall 2022**

**Instructor** Jose Lineros, Ph.D., CPA, CISA, CIA, CFE, CRISC, CSX, MCTS  
Office – RCOB 399 D  
Office hours: after class or via Zoom online – just let me know your needs

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**Class times** **Wednesdays 6:30 pm to 9:20 pm**

**Prerequisites** Must have a 2.5 GPA in all ACCT 3000 and ACCT 4000 courses  
Co-requisite: ACCT 3120, **you are responsible** for making sure you have the correct prerequisites. Please check with Becky Andrews in RCOB 213 if you are unsure.

**LOOKFORWARD PROVISION:** This course serves as a prerequisite for ACCT 4400, ACCT 5140, ACCT 5160, ACCT 5520, and ACCT 5710.

It may also be a prerequisite for some non-accounting courses. Please discuss your course schedule with your advisor.

**Required Materials**

1 - **Accounting Information Systems**. Romney & Steinbart. 15<sup>th</sup> edition Pearson Publishing. – **older versions are acceptable, feel free to buy used**. **Note:** May purchase a digital license or a physical copy (new/used/rental are all acceptable)

2 - **Systems Understanding Aid**. Arens & Ward. 10<sup>th</sup> edition. **\*\*PLEASE NOTE: DO NOT RENT OR PURCHASE THIS USED – must use 10th edition – new, not used.\*\***  
These materials cannot be used more than once, you will get incorrect answers! **Used or rented copies will not be acceptable for completion of the course.**

**SUA will be completed individually, however, collaboration will be allowed.**  
**Collaboration means bringing up problems you are having during our synchronous sessions. We can help each other when we get stuck that way. Collaboration does not mean copying. After SUAs are submitted, all will be subject to audit on my part. Part of that audit will be explaining how you got your figures. Please be ready after you submit to read from your notes/materials how you obtained your numbers.**

3 – **GMetrix Access**. No purchase necessary. Code needed for registration is:  
**46425-LINEROS-94541.**

4 – **LinkedIn-Lynda**. No purchase necessary. Access is free to students with UNT EID. All videos may be viewed under the series title “**Cert Prep: Excel 2019 Microsoft Office** <https://its.untssystem.edu/divisions/mrs/linkedin-learning> **Expert (77-728)**” – this is optional – most students if they get stuck on Excel either bring it up in class or go to YouTube.

5 – **Microsoft Excel Expert Software and Exam**. No purchase necessary. License is included in student fees.

### **Course Description**

Introduction to technology/accounting information systems and their interface with business processes. Emphasis on auditing system security and integrity. Coverage of project management and accounting systems development. Practical experience with data analysis utilizing Microsoft Excel.

### **Course Objectives**

The overall course objective is to familiarize students with the way in which systems are used in organizations to provide decision-relevant information and to enable them to understand how systems are designed and implemented to meet organizational needs. “Accounting technology” in this context means all the tools and practices employed in enterprise accounting in the broadest sense. The content and objectives of this course are most applicable to those students heading for (non-technical) general accounting or related management careers in larger enterprises or with firms that audit and assist those firms. After completing this course, students should have a sound basis for understanding the functioning of any information system they may encounter in practice, and they should be able to relate its features to the conceptual enterprise framework presented in this course. This should allow them to be informed consumers and users of high-quality accounting and enterprise software.

Successful enterprises are able to design, develop, and employ information systems that meet the needs of their managers/decision-makers in accounting, finance, marketing, supply chain logistics, etc. Accountants perform four roles with respect to information systems. They are 1) users, 2) designers, 3) managers, and 4) evaluators. To perform these four roles effectively, accountants need to understand the strategic objectives and business processes of the enterprise. They also need to understand capabilities and limitations inherent in current technology. Perhaps most importantly, they also need to understand how technology may be employed to further the strategic objectives of the firm. The most common systems in use today to support enterprise operations and decision-making are database systems. This course therefore emphasizes 1) conceptual systems analysis and design techniques, 3) how systems designs are implemented with contemporary technology, and 3) how this material relates to overall accounting objectives.

Since the course emphasizes the design of information systems to support decision makers, the course content is similar to the kind of material that you might find in an information systems course. The course is, however, tailored to provide information about technology that accountants should know to be successful in contemporary business organizations. The course requires conceptual thinking, visual thinking, and imagination—rather than computational skills and memorization.

After completing this course, students should be able to:

1. Describe in detail the purpose of accounting information systems and the links between business structure, processes, performance, and information systems.

2. Analyze information flows in an organization and develop conceptual models of organizational relationships.
3. Use the software package Excel to implement the conceptual models of information systems, and demonstrate how that knowledge transfers to a variety of comparable systems and software packages.
4. Identify organizational risk and control issues, incorporate those issues into conceptual models, and explain how information technology changes control techniques.
5. Develop support for business decisions based on a systematic and objective consideration of the problems, issues, and relative merits of feasible alternatives using appropriate decision-modeling techniques (“decision modeling”):
  - a. Identify problems, potential solution approaches, and related uncertainties. Organize and evaluate information, alternatives, cost/benefits, risks and rewards of alternative scenarios.
  - b. Employ model-building techniques to quantify problems or test solutions.
6. Use and apply prevalent business-related technology (“leveraging technology”):
  - a. Appropriately use electronic spreadsheets, database applications, and other software to build models and relational databases.
  - b. Recognize commonly used information architectures.
  - c. Describe risks and related issues about privacy, intellectual property rights, and security considerations related to electronic commerce and communications.
  - d. Develop and communicate reasonable recommendations for technology use in organizations.
  - e. Describe the process of developing and implementing technological change in organizations.

### **Course Procedures**

Class periods will consist of lectures, hands-on exercises, and simulation practice requiring access to a computer.

### **Email**

The best way to contact me is through e-mail: [jose.lineros@unt.edu](mailto:jose.lineros@unt.edu) or text me at 817-291-4560. I am usually prompt with my replies and if not, I try my best to reply within 24 hours. If 24 hours have elapsed without a reply, please send me a reminder e-mail. Please only contact me via e-mail with respect to personal subject matters, not text.

### **Attendance and Assignment Requirements**

Attendance is expected. If you cannot attend a class, it is your responsibility to check with your partner or group to find out what happened during class and what was assigned. Late assignment approval is only considered in cases of personal or dependent’s health (doctor’s note required), family emergency, or other exigent circumstances. This does not guarantee approval, only provides a beginning point for case review.

Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. It is important that you communicate with the professor and the instructional team prior to being absent, so you, the professor, and the instructional team can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the professor and

instructional team if you are unable to attend class meetings because you are ill, in mindfulness of the health and safety of everyone in our community.

If you are experiencing any symptoms of COVID-19, please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider PRIOR to coming to campus. UNT also requires you to contact the UNT COVID Team at COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure.

Remote instruction may be necessary if community health conditions change, or you need to self-isolate or quarantine due to COVID-19. Students will need access to a [webcam and microphone – faculty member to include what other basic equipment is needed] to participate in fully remote portions of the class. Additional required classroom materials for remote learning include: [list specific software, supplies, equipment or system requirements needed for the course]. Information on how to be successful in a remote learning environment can be found at <https://online.unt.edu/learn>.

Synchronous (live) sessions in this course may be recorded for students enrolled in this class section to refer to throughout the semester. Class recordings are the intellectual property of the university or instructor and are reserved for use only by students in this class and only for educational purposes. Students may not post or otherwise share the recordings outside the class, or outside the Canvas Learning Management System, in any form. Failing to follow this restriction is a violation of the UNT Code of Student Conduct and could lead to disciplinary action.

UNT encourages everyone to wear a face covering when indoors, regardless of vaccination status, to protect yourself and others from COVID infection, as recommended by current CDC guidelines. Face covering guidelines could change based on community health conditions.

### **Help**

My goal is to help you attain the knowledge and skills outlined above. I encourage you to ask questions either in class or outside of class. I am usually available via email most weekends and evenings. I also encourage you to work with your partner or group, except when specifically instructed to work as an individual. Simply copying someone else's work will be detected and addressed.

There is also help available in the accounting lab. You may see hours and make an appointment here:

<https://cob.unt.edu/lab/tutor>

<b><u>Grading</u></b> Grades are as follows:	<b>Category</b> <b><u>Exams</u></b>	Mid Term Final Exam Microsoft Excel Expert Certification	350 350 <u>200</u> 900	determined
	<b><u>SUA Project</u></b>	Systems Understanding Aid (SUA)	200	
	<b><u>Individual Assignments</u></b>	Additional Ad Hoc Excel Assignments GMetrix (2 practice exams over 800) Participation / Attendance	200 40 <u>40</u> 280	
	<b><u>Total Points Possible</u></b>		<u>1380</u>	

**Letter grades will be assigned as a percentage of total possible points as follows:**

**A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F < 60%**

Plus and minus grading **will not** be used for this course.

Every attempt will be made to grade all work consistently, fairly, and timely. However, if you feel a grade has been recorded in error or a mistake has been made on any assignment or exam, please notify me during class, office hours, or contact me via a short-written note or email, within one week of the return of the graded assignment/exam or the grade having been posted on Canvas. I will review the grade and make any appropriate changes. **If more than one week has elapsed since I have posted the grade on Canvas or returned the assignment during a class session, I am happy to answer questions, but no grades will be changed.**

**COURSE TOPICS**

Unit 1: AIS & the Organization

Unit 2: Business Cycles and SDLC

Unit 3: Databases

## Exams

There will be three exams during the semester (including the Expert Excel Exam). There will be no make-up exams without prior instructor approval. If you encounter an unavoidable absence related to a documented illness, death in the family, or other university-sanctioned absence, it is incumbent on you to contact me in advance. If you qualify to miss an exam, you will take a makeup exam as soon as you return. Exam content will consist of lectures, reading material, and any supplementary documents provided on the course website. Examinations may consist of multiple choice, true/false, short answer, matching, or problems. For each exam you will need to provide your own pencils.

**During exams, no cell phones are allowed, and use of a cell phone will result in a grade of zero and potential disciplinary action.**

Exams, as well as any graded assignments collected, will be retained for one year following the completion of the semester and then destroyed.

## Excel Exam

**Prior** to sitting for the Expert Excel Exam, students must provide evidence of a score  $\geq 800$  points in GMetrix on all two practice exams in Testing Mode. Failure to provide evidence of this score will result in the forfeiture of an attempt on the Expert Excel Exam (i.e., you will not be permitted to sit for the exam). If a student fails the initial Expert Excel Exam they will have to retake GMetrix and provide further evidence of a passing score before they will be allowed to reattempt the exam.

The Expert Excel Exam will be administered in the testing center at Sage Hall (Sage 330) [if it is open]. Time permitting, students will have two attempts to pass the Expert Excel Exam during the semester. Students who pass the Expert Excel Exam will be awarded points based on their %, i.e., a 50% (score of 500) will earn you 100 points (200 times 50%).

## Homework/Projects

AIS functions include the ability to gather and process data into information that can be reported to and used by decision makers. Communication of this information comes in many forms. Teamwork is a necessary component of any successful business model and will be necessary to complete projects preparing you for the gathering, processing, and communication of information. Also, the ability to compose and present concise written/oral reports is imperative in fast-paced business. This class will emphasize projects that reinforce course material and provide hands-on experience with AIS concepts and tools. More information will be provided in class. **Late projects will not be accepted.**

1. Systems Understanding Aid (**SUA Project**) (Individual Work)– manual AIS involving journal entries, financial statement preparation, and other accounting tasks.
  - a. Will be completed individually. SUAs will be randomly and selectively pulled for audit whereupon you will be asked how they came to certain figures on the financial statements. **Prior to submitting your SUA, be sure you have a phone pic of all financial statements.**
  - b. **Please note:** This project takes approximately **30-40 hours** to complete for a trained accountant. I highly recommend getting started early. Waiting until the week it is due will lead to increased anxiety and poor work quality, based on anecdotal evidence.

2. Excel Ad Hoc Assignments – (Individual Work) For your grade you will be required to correctly submit the solved ad hoc Excel assignment worksheet to Canvas. Some of those will come from Mike's Office modules and others from GMetrix software. The GMetrix ones require uploading a successful image screen cap (laptop or phone) per the given instructions. Mike's Office assignments involve creating an MP4 file through a screen recorder (your audio and screen – no floating head) where you talk me through the solution of the problem. **Do not upload the MP4 file to Canvas**. Instead, upload it to YouTube first (configure it Unlisted so only you/I can see it) and then upload the video link to Canvas. I don't mind if you collaborate, but all work must be recorded individually. [Note: to upload videos longer than 15 minutes to YouTube, you have to "register" an account with them. Here are instructions] - <https://studio.support.brightcove.com/general/enabling-longer-videos-youtube.html>
3. GMetrix (Individual Work) involves you using GMetrix software to complete two different timed practice exams and posting a score of 800 or better. This is required to reserve a seat for the actual Microsoft Excel exam at the Sage Testing Center.

### **Participation/Professionalism/Attendance**

A professional demeanor is an integral part of any business environment, especially in your preparation for a career in accounting. Professionalism in this environment implies a respect and courtesy for others. I expect students to maintain the highest standards of professionalism in the classroom. Your speech, appearance, and attitude impact your professional image in the eyes of those around you. Asking for concessions that would violate the syllabus (attempts at turning in homework late, habitually missing class, asking me to fraudulently report your grade by adding or rounding points, etc.), are examples of unprofessional behavior that translated into a business environment would get you fired. Professionalism is also exemplified by willingness to lead discussions in class. Excessive absences will result in the forfeiture of all professionalism points.

A link to the University Attendance Policy may be found below:

<https://policy.unt.edu/policy/06-039>

### **Intellectual Property**

Taping lectures or classroom discussions is permitted. However, it is expected that students will request authorization from the instructor to tape a class. Notes and/or tapes of class lectures and discussions are not permitted to be sold.

### **ACADEMIC INTEGRITY**

No matter what your beliefs are on cheating, DON'T. Your future as a professional accountant depends in part on others feeling that they can rely on what you say and do. A large part of what you are selling as a professional accountant is your reputation.

The University of North Texas is committed to the maintenance of the highest standards of integrity and ethical conduct of its members. This level of ethical behavior and integrity will be maintained in this course. Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any



instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. Participating in the following (but not limited to) behavior violates academic integrity: (e.g., unauthorized collaboration on homework or assignments, plagiarism, multiple submissions of the same assignment, cheating on examinations, fabricating information, helping another person cheat, having unauthorized advance access to examinations, altering or destroying the work of others, and fraudulently altering academic records. The Code of Student Conduct can be found at [www.unt.edu/csrr](http://www.unt.edu/csrr).

Academic dishonesty is defined in the UNT Policy on Student Standards for Academic Integrity. Any suspected case of academic dishonesty will be handled in accordance with the University policy and procedures. Possible academic penalties include a grade of "F" in the course. You will find the policy and procedures at <http://vpaa.unt.edu/academic-integrity.htm>

If I suspect that you have engaged in academic dishonesty, I will deal with the situation as outlined in the University policy referenced above. You will be allowed to remain in class during the entire time that the academic misconduct accusation is being investigated, adjudicated, and appealed. As noted above, the maximum academic penalty that can be assessed by an instructor is an F in the course. However, University officials use the academic misconduct information to decide if other misconduct sanctions are then to be applied, and the student has separate rights to appeal those decisions, remaining in class until all appeals are exhausted.

For our purposes in this particular class, **it is especially critical that you NOT take any of the following actions:**

1. Copying another individual's or group's answers.
2. Asking or pressuring another individual or group to help you with your individual or group project or exam.
3. Providing the above-prohibited assistance to another individual or group.
4. Representing someone else's work as your own.

### **SPOT**

The Student Perceptions of Teaching (SPOT) is a requirement for all organized classes at UNT. This short survey will be made available to you online at the end of the semester. This will provide you a chance to provide input about this class. I am very interested in the feedback I get from students and encourage you to complete the survey honestly and in its entirety. I consider the SPOT to be an important part of your participation in this class.

### **CELL PHONES**

It is inconsiderate to those around you to have your ring tone disrupt class or for you to be persistently texting next to someone trying to pay attention. Turn your ring tones OFF and step out of the room if you need to answer your phone or feel the need to carry on a text conversation. **Absolutely NO cell phone use during an examination. If it is discovered that you used a cell phone during an exam, you will receive a zero for that exam.**



## **STUDENTS WITH DISABILITIES**

The University of North Texas is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 92-112 – The Rehabilitation Act of 1973 as amended. The passage of new federal legislation entitled Americans with Disabilities Act (ADA), pursuant to section 504 of the Rehabilitation Act; there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide reasonable accommodations to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty of their need for accommodation and in providing authorized documentation through designated administrative channels. Information regarding specific diagnostic criteria and policies for obtaining academic accommodations can be found at <http://www.unt.edu/oda/apply/index.html>. Also, you may visit the Office of Disability Accommodation in the University Union (room 321) or call them at (940)565-4323. If you need an accommodation, please contact me as soon as possible but at the latest by the second week of class. If you require accommodation for an exam, please notify me at least one week in advance to make the necessary preparations.

## **Inclement Weather**

The class follows the standard University policy. Additionally, whenever you feel it is unsafe to come to class due to driving conditions, please do not come. Let me know why you did not attend at the earliest possible opportunity.

**WITHDRAWALS:** University policy relative to withdrawals will be followed. **Please consult with your academic advisor or UNT academic calendar for all relevant dates anent the last date you can:**

- Drop with an automatic grade of W
- Drop with a W **if** you are passing the course
- Last day you can drop a course at all
- **It is vital that you consult with your academic advisor prior to dropping any course. It can have dire effects on your financial aid and/or academic record.**
- **Becky Andrews in the Acctg Office BLB 213 is also available if the registrar's office is unavailable.**

## **Emergency Notification & Procedures**

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). The system sends voice messages (and text messages upon permission) to the phones of all active faculty staff, and students. Please make certain to update your phone numbers at <http://www.my.unt.edu>. Some helpful emergency preparedness actions include: 1) know the evacuation routes and severe weather shelter areas in the buildings where your classes are held, 2) determine how you will contact family and friends if phones are temporarily unavailable, and 3) identify where you will go if you need to evacuate the Denton area suddenly. In the event of a university closure, please refer to Blackboard for contingency plans for covering course materials.

Emergency Evacuation Procedures for Business Leadership Building:

**Severe Weather:** In the event of severe weather, all building occupants should immediately seek shelter in the designated shelter-in-place area in the building. If unable to safely move to the designated shelter-in-place area, seek shelter in a windowless interior room or hallway on the lowest floor of the building. All building occupants should take shelter in rooms 055, 077, 090, and the restrooms on the basement level. In rooms 170, 155, and the restrooms on the first floor.

**Bomb Threat/Fire:** In the event of a bomb threat or fire in the building, all building occupants should immediately evacuate the building using the nearest exit. Once outside, proceed to the designated assembly area. If unable to safely move to the designated assembly area, contact one or more members of your department or unit to let them know you are safe and inform them of your whereabouts. Persons with mobility impairments who are unable to safely exit the building should move to a designated area of refuge and await assistance from emergency responders. All building occupants should immediately evacuate the building and proceed to the south side of Crumley Hall in the grassy area, west of parking lot 24.

### **Mental Health Resources**

UNT believes it is important to foster an environment that encourages students to maintain a standard of responsibility for self-care which includes the ability to respond adequately to one's emotional, physical, and educational needs. Some students who are distressed engage in behaviors that compromise their own welfare, as well as the welfare of the university community. If you or a friend need assistance with mental health resources on campus, please feel free to reach out to counseling and testing at 940-565-2741 or the care team at [report.unt.edu](mailto:report.unt.edu).

### **COVID-19 impact on attendance**

While attendance is expected as outlined above, it is important for all of us to be mindful of the health and safety of everyone in our community, especially given concerns about COVID-19. Please contact me if you are unable to attend class because you are ill, or unable to attend class due to a related issue regarding COVID-19. It is important that you communicate with me *prior to being absent* as to what may be preventing you from coming to class so I may make a decision about accommodating your request to be excused from class.

If you are experiencing cough, shortness of breath or difficulty breathing, fever, or any of the other possible symptoms of COVID-19 (<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or [askSHWC@unt.edu](mailto:askSHWC@unt.edu)) or your health care provider. While attendance is an important part of succeeding in this class, your own health, and those of others in the community, is more important.

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**Class Schedule**

The general class schedule is posted separately on the course website. **I CONSIDER IT YOUR RESPONSIBILITY AND STRONGLY RECOMMEND THAT YOU CHECK THE COURSE WEBSITE DAILY FOR ANNOUNCEMENTS, SCHEDULE CHANGES, ASSIGNMENTS, ETC.**

The schedule and syllabus are simply a template for us to follow. I will spend as much time on a topic as necessary for this specific class to master a topic. I will regularly post information/handouts that I expect you to bring with you to class.

<u>WEEK #</u>	<u>Week of:</u>	<u>TOPICS</u>
Week 1	08/29	Course Introduction, Assignment and Material Overview Introduce Microsoft Excel, Lynda, and GMetrix. Course Introduction, what is a computer, a business system, etc. History of Computing Accounting Systems Overview
		<b>Talk about SUA – <u>**Project Due Date TBD**</u></b>
Week 2	09/05	Overview of Transaction Processing and ERP Systems
		Systems Documentation Techniques Business & Transaction Processing <b>Flowcharts</b> Documentation Techniques and COBIT, COSO, ERM, FCPA, SOX, and PCAOB
Week 3	09/12	System Reliability – Data Integrity, Input controls, Processing controls, Reporting Controls
Week 4	09/19	System Reliability – Confidentiality / Intellectual Property / Encryption
Week 5	09/26	System Reliability – Parity Bit Checking / VPN / Telecommunications
Week 6	10/03	Telecommunications

<u>WEEK #</u>	<u>Week of:</u>	<u>TOPICS</u>
Week 7	10/10	<b>Mid Term Exam – in person in our classroom – open notes/book – 65 MC questions, 60 minutes</b>
Week 8	10/17	COSO ERM and System Design
Week 9	10/24	Software development life cycle – requirements gathering / ideation / systems analysis / physical design
Week 10	10/31	Software development life cycle – conversion and implementation / maintenance
Week 11	11/07	Begin Cybersecurity - fundamentals
Week 12	11/14	<b>NOTE</b> – Excel Expert exam at the Sage Testing Center on <u>Wednesday November 16<sup>th</sup> at 6:30 pm on the third-floor room 331</u> – no in-class lecture this week. <b>If you fail the exam the first time, the retake time at Sage is noon on Friday November 18<sup>th</sup> at noon – so please plan accordingly - thx.</b>
Week 13	11/21	Cybersecurity – Internet and business / RSA / TLS / NAK, SYN, ACK
Week 14	11/28	Cybersecurity – Malware / IPS / IDS, Firewalls
Week 15	12/05	IT Future Directions – SUAs due at beginning of class, once class begins it’s considered late – no late work will be accepted...thanks..
Week 16		<b>Final Exam Date – <b>Wednesday 12/14 at 6:30 pm</b> (our regular class time), in person in our classroom – open notes/book – 65 MC questions, 60 minutes</b>