

CSCE 3444

Software Engineering

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This class is asynchronous, and videos and course materials will be published **every Wednesday at noon**.

Communication Expectations:

We will primarily use email for direct communication. Please send personal concerns or questions to hadiseh.gooranorimi@unt.edu. I aim to respond to emails within 24-48 hours on weekdays, provide assignment feedback within a week, and post grades within a week of the submission deadline. Remember to adhere to netiquette principles in your communication, and check course announcements for updates. Your questions and concerns are important, so don't hesitate to reach out.

Course Description

This course focuses on the modular design and implementation of software systems. Topics include requirements and specification development, documentation using UML, testing, software quality assurance, and project management. Emphasis is placed on teamwork, iterative development, and preparation for the Capstone experience.

Course Prerequisites:

CSCE 3110 with a grade of C or better.

Course Objectives

By the end of this course, students will be able to:

- Gather, analyze, and refine user and system requirements.
- Create a **Software Requirements Specification (SRS)** document.
- Apply software analysis and design principles using UML and design patterns.
- Utilize project management methodologies, Agile processes, and configuration management.
- Produce design documents, test plans, and maintain proper project artifacts.
- Demonstrate coding, testing, and presentation of a software system in a team environment.

Grading Policy

- Pop Quizzes (lowest 1 dropped): 30%
- Group Project (scaled by peer evaluations): 40%
- Individual Assignments + In-class Activities: 30%

Letter Grades:

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

Course Requirements

- **Project:** The majority of deliverables come from a semester-long **team project**, with coding participation required. Lack of coding involvement will result in penalties.
- **Assignments:** Individual assignments will reinforce requirements, design, and testing concepts.

Required book:

- Software Engineering: A Practitioner's Approach (9th Edition) by Roger Pressman and Bruce Maxim.

Course Schedule (Highlights)

- **Week 1:** Introduction; Team creation activity.
- **Week 2:** Process Models (Agile, Waterfall, etc.); Project proposals due.
- **Week 3:** Requirements gathering and analysis; Project plan submission.
- **Week 4:** UI Design & Accessibility; Assignment 1 due.
- **Week 5:** Software Design & Best Practices; SRS due.
- **Week 6:** Design Patterns; Group design activity.
- **Week 7:** Risk Management & Configuration Management.
- **Week 8:** Code Inspection; Assignment 2 due.
- **Week 10:** Testing & Integration; Test plan due.
- **Week 11:** AI in Software Engineering.
- **Week 12:** Metrics.
- **Week 13:** Heuristic Evaluation.
- **Week 15:** Final Project Presentations.
- **Finals:** Live final demos

Technical Requirements & Skills

Minimum Technology Requirements

- Computer
- Reliable internet access
- Canvas Technical Requirements (<https://clear.unt.edu/supported-technologies/canvas/requirements>)

Computer Skills & Digital Literacy

- Using Canvas
- Using email with attachments
- Downloading and installing software

Netiquette

- Treat your instructor and classmates with respect in email or any other communication.
- Use clear and concise language.
- Remember that all college level communication should have correct spelling and grammar (this includes discussion boards).
- Avoid slang terms such as "wassup?" and texting abbreviations such as "u" instead of "you."
- Use standard fonts such as Ariel, Calibri or Times new Roman and use a size 10 or 12 point font
- Avoid using the caps lock feature AS IT CAN BE INTERPRETTED AS YELLING.
- Limit and possibly avoid the use of emoticons like :) or .
- Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and your message might be taken seriously or sound offensive.

- Be careful with personal information (both yours and other's).
- Do not send confidential information via e-mail

Academic Support Services

- Academic Resource Center (<https://clear.unt.edu/canvas/student-resources>)
- Academic Success Center (<https://success.unt.edu/asc>)
- UNT Libraries (<https://library.unt.edu/>)
- Writing Lab (<http://writingcenter.unt.edu/>)
- MathLab (<https://math.unt.edu/mathlab>)

Course Policies:

Late Work

You will not be able to receive a full grade for late submissions. Please ensure that you submit your work on time. If you anticipate needing more time for any reason, it is essential to inform the instructor in advance and provide a valid reason for requesting an extension. Without advance notice and a valid reason, we may not be able to accommodate late submissions.

Course Evaluation

Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student experiences in the course.

Syllabus Change Policy

Please be aware that the syllabus, course details, and due dates are subject to change during the course. Updates will be communicated through class announcements, email, or the course management system. Changes may arise to enhance the learning experience or address unforeseen circumstances. It is your responsibility to stay informed and adapt as necessary. Your understanding and cooperation are appreciated as we strive to provide the best possible learning environment.

Academic integrity

This course follows UNT's policy for *Student Academic Integrity* that can be found at <https://policy.unt.edu/policy/06-003> as well as the *Cheating Policy* for the Department of Computer Science and Engineering. Specifically, the first instance of a student found to have violated the academic integrity (i.e., cheating) policy will result in a grade of "F" for the course and have a report filed into the Academic Integrity Database, which may include additional sanctions.

ADA Policy

UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one's specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the ODA website (<https://disability.unt.edu/>).

Technical Assistance

Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

UIT Help Desk: <http://www.unt.edu/helpdesk/index.htm>

Email: helpdesk@unt.edu

Phone: 940-565-2324

In Person: Sage Hall, Room 130

Walk-In Availability: 8am-9pm

Telephone Availability:

- Sunday: noon-midnight
- Monday-Thursday: 8am-midnight
- Friday: 8am-8pm
- Saturday: 9am-5pm

Laptop Checkout: 8am-7pm

For additional support, visit Canvas Technical Help

(<https://community.canvaslms.com/docs/DOC-10554-4212710328>)

Student Support Services

- Registrar (<https://registrar.unt.edu/registration>)
- Financial Aid (<https://financialaid.unt.edu/>)
- Student Legal Services (<https://studentaffairs.unt.edu/student-legal-services>)
- Career Center (<https://studentaffairs.unt.edu/career-center>)
- Multicultural Center (<https://edo.unt.edu/multicultural-center>)
- Counseling and Testing Services (<https://studentaffairs.unt.edu/counseling-and-testing-services>)
- Student Affairs Care Team (<https://studentaffairs.unt.edu/care>)
- Student Health and Wellness Center
(<https://studentaffairs.unt.edu/student-health-and-wellness-center>)
- Pride Alliance (<https://edo.unt.edu/pridealliance>)

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). In the event of a university closure, please refer to Blackboard for contingency plans for covering course materials.

Retention of Student Records

Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Blackboard online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student's records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University's policy. See UNT Policy 10.10, Records Management and Retention for additional information.

Acceptable Student Behavior

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 Dean of Students 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. Visit UNT's Code of Student Conduct (<https://deanofstudents.unt.edu/conduct>) to learn more.

Access to Information - Eagle Connect

Students' access point for business and academic services at UNT is located at: my.unt.edu. All official communication from the University will be delivered to a student's Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward email Eagle Connect (<https://it.unt.edu/eagleconnect>).

Sexual Assault Prevention

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination on the basis of sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT's Survivor Advocates can assist a student who has been impacted by violence by filing protective orders, completing crime victim's compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at 940-565- 2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at oeo@unt.edu or at (940) 565 2759.

Important Notice for F-1 Students taking Distance Education Courses

Federal Regulation

To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses, please go to the Electronic Code of Federal Regulations website (<http://www.ecfr.gov/>). The specific portion concerning distance education courses is located at Title 8 CFR 214.2 Paragraph (f)(6)(i)(G).

The paragraph reads:

(G) For F-1 students enrolled in classes for credit or classroom hours, no more than the equivalent of one class or three credits per session, term, semester, trimester, or quarter may be counted toward the full course of study requirement if the class is taken on-line or through distance education and does not require the student's physical attendance for classes, examination or other purposes integral to completion of the class. An on-line or distance education course is a course that is offered principally through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing. If the F-1 student's course of study is in a language study program, no on-line or distance education classes may be considered to count toward a student's full course of study requirement.

University of North Texas Compliance

To comply with immigration regulations, an F-1 visa holder within the United States may need to engage in an on-campus experiential component for this course. This component (which must be approved in advance by the instructor) can include activities such as taking an on-campus exam, participating in an on-campus lecture or lab activity, or other on-campus experience integral to the completion of this course.

If such an on-campus activity is required, it is the student's responsibility to do the following:

- (1) Submit a written request to the instructor for an on-campus experiential component within one week of the start of the course.
- (2) Ensure that the activity on campus takes place and the instructor documents it in writing with a notice sent to the International Student and Scholar Services Office. ISSS has a form available that you may use for this purpose.

Because the decision may have serious immigration consequences, if an F-1 student is unsure about his or her need to participate in an on-campus experiential component for this course, s/he should contact the UNT International Student and Scholar Services Office (telephone 940-565-2195 or email internationaladvising@unt.edu) to get clarification before the one-week deadline.

Student Verification

UNT takes measures to protect the integrity of educational credentials awarded to students enrolled in distance education courses by verifying student identity, protecting student privacy, and notifying students of any special meeting times/locations or additional charges associated with student identity verification in distance education courses.

See UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance Education Courses (<https://policy.unt.edu/policy/07-002>).

Use of Student Work

A student owns the copyright for all work (e.g. software, photographs, reports, presentations, and email postings) he or she creates within a class and the University is not entitled to use any student work without the student's permission unless all of the following criteria are met:

- The work is used only once.
- The work is not used in its entirety.
- Use of the work does not affect any potential profits from the work.
- The student is not identified.
- The work is identified as student work.

If the use of the work does not meet all of the above criteria, then the University office or department using the work must obtain the student's written permission.

Download the UNT System Permission, Waiver and Release Form