SECURITY CAPSTONE I-Fall 2025
CSCE 4927-002

Course Instructor: Dr. Pradhumna Shrestha

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- Include CSCE 4907.002 in subject line

- Always use your official UNT email address. I will NOT reply to an external email address since it violates UNT policies.

- I will reply to your email within 2 business days, if you don't see a response, something is wrong. Please resend the email.

Class Location/Time: NTDP K110, TuTh 1:00 PM - 2:20 PM

Office Hours (In-Person/Zoom): Tuesday 12 PM- 1PM @F265 or via appointment

Office Hours Zoom Link: https://unt.zoom.us/j/3251832551

COURSE DESCRIPTION

First of a two-course sequence in which students apply cybersecurity principles and techniques to develop a complex information system starting from customer requirements and progressing through the entire analysis, design, implementation and delivery lifecycle. Students work in teams to develop a project plan, complete the technical components of the project, prepare a variety of deliverable documents, and finally deliver the finished product to the customer. The first course focuses on the analysis and design of the secure system.

COURSE OUTCOMES

1. Gather and refine user functional requirements and other functional and non-functional requirements and constraints for a large-scale secure information system and create a system requirements specification document.
2. Perform system analysis and design tasks using recognized cybersecurity principles and practices to create a preliminary design specification for a secure system based on a requirements specification.
3. Utilize project management principles, skills, and tools in creating the requirements and preliminary design specifications.
4. Create a project management plan, including a schedule and budget for a large-scale secure information systems project.
5. Utilize configuration management, project management, and design tools in the course of the project.
6. Analyze and maintain appropriate project artifacts to reflect inclusive security design and societal impact for the project sponsors, users, and other stakeholders.

TEXTBOOK
N/A

PRE-REQUISITES: Prerequisite(s): CSCE 3550 with a grade of C or better.

COREQUISITE(S): CSCE 4565 with a grade of C or better

SCHEDULE AND GRADING
Attendance: 5%
Individual Project Deliverables: 15%
Team Project Deliverables: 30%
Team Presentation: 10%
Demonstrations: 40%

Notes:
ATTENDANCE POLICY

Class attendance is regarded as an obligation as well as a privilege. All students are therefore expected to attend each class meeting. *A student who misses class is still responsible to find out what was discussed and to learn the material that was covered and obtain the homework that was assigned on the missed day.* The instructor is not responsible for re-teaching material missed by a student who did not attend class. Therefore, each student is accountable for and will be evaluated on *all* material covered in this course, regardless of attendance.

Attendance/Participation grades will be based on attendance, contribution to in-class discussions, and assessment of any in-class work. Disruptive behavior and unexcused absences deemed excessive will result in a lower attendance/participation grade.

DELIVERABLES

There will be few individual deliverables and few team deliverables. Every deliverable will have sample template document which is required to be used by the team and the members to turn in the deliverables.

DEMONSTRATION

It is expected that you complete 1/3rd of your project requirements towards the end of the semester. The team members will equally divide the project requirements and take responsibility to complete the requirements. Instructor would evaluate team member's self-assigned requirements and recommend possible changes. At the end of the semester, each team member will demonstrate 1/3rd of the self-assigned project requirements to earn 40% towards the demonstration. Not completing 1/3rd of the requirements or demonstration does not earn any points towards demonstration. Please note that you have to demonstrate that you have completed all committed project requirements. For example, if you have to complete 4 requirements by the end of the semester, but you complete only 3, you will make a 0 for the demonstration and fail the class.

TEAM PRESENTATION

There will be a 15-minute presentation by each team. Attendance is required.

• **Team Presentation:** Thursday December 11, 10:30 AM-12:30 PM

GRADING POLICY

Grades will be posted on Canvas throughout the semester to provide an ongoing assessment of student progress, though final assessment will be measured using the weighted average above.

Also, once a grade is assigned on Canvas, students have two weeks to dispute the grade.

The proper channel for grade disputes is to first go to the original grader (such as the TA or IA) in an attempt to resolve the issue. If, however, a resolution cannot be reached between the student and the grader, the student shall then go to the instructor who will have the final say on the grade.

STUDENT RESPONSIBILITY

Students are responsible for submitting the *correct* assignments (i.e., uploading the proper files) for each applicable assignment submission on Canvas. When an incorrect assignment is submitted to Canvas, students wanting to resubmit with the correct file(s) *after the due date has passed* will have their assignment assessed a 30% reduction penalty. Proof must be given (i.e., timestamp for the file on the CSE machines) that the assignment was completed on time. If you have any questions or concerns about your submission, please work with your instructor or TA/IA for this course to ensure the correct file(s) is/are submitted.

ADA STATEMENT

The University of North Texas 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 you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You 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 Office of Disability Accommodation website at http://disability.unt.edu. You may also contact them by phone at (940) 565-4323.

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. The Code of Student Conduct can be found at http://deanofstudents.unt.edu.

ACADEMIC DISHONESTY

This course follows the Department of Computer Science and Engineering *Cheating Policy*. Specifically, students caught cheating or plagiarizing will receive a "0" for that particular assignment or exam for the first offense. Additionally, the incident may be reported to the Dean of Students, who may impose a further penalty. A second instance of cheating in this class will result in a grade of F in the class, and referral to the Department Chairperson and Dean of Engineering, whereby a dismissal hearing may be initiated by the Dean of Engineering.

Students are responsible for being familiar with the university standard for academic integrity. In the case that the above description or any in-class discussion of appropriate and inappropriate collaboration do not answer all of your questions, please meet with your instructor and look at the university Student Rights and Responsibilities web page.

Artificial Intelligence in Academic Integrity
A more complete policy will be made available soon, but for now be aware the "unauthorized" use of any person or technology that assists in a student's assignment, project, or paper is considered cheating under the UNT Student Academic Integrity Policy (UNT Policy 6.003). Unless a professor or instructor gives explicit "authorization," AI cannot be used to assist in the completion of assignments, projects, or papers. Doing so will result in a "cheating" violation. Again, if uncertain contact the instructor prior to using AI tools.

CAMPUS CLOSURES
UNT is committed to the safety and security of the campus community and recognizes the value of maintaining university operations. However, in the event university operations are disrupted due to an emergency or other hazardous conditions threatening the safety, health, or welfare of the campus community, UNT may be required to cancel classes, suspend operations, or close campus in its entirety. **See full policy (PDF)** 15.006 Campus Closures.pdf

SYLLABUS REVISIONS

This syllabus may be modified as the course progresses should the instructor deem it necessary. Notice of changes to the syllabus shall be made through Canvas and/or class announcement.

TENTATIVE SCHEDULE

Week	Lecture	Deliverables
08/18-08/22	Course Overview/ Recruitment/Pitch	Determine Teams and Team Names (1%)
08/25-08/29	Design Process/Teams	Determine Projects (1%)
09/01-09/05*	Brainstorming ideas/ Requirements	

Date	Topic	Deliverable
09/08-09/12	Project Management	Requirements Draft Due (7.5%)/Status Report (2%)
09/15-09/19	RUP and Use Cases	Requirements Due (5%)
09/22-09/26	Preliminary Design Overview	Specifications Draft Due (7.5%)
09/29-10/03	Detailed Design	Specifications Due (5%)
10/06-10/10	Begin Prototype Development	
10/13-10/17	Continue Development	Status Report (2%)
10/20-10/24	Continue Development	Project Proposal Due (10%)
10/27-10/31	Continue Development	
11/03-11/07	Continue Development	Status Report (2%)
11/10-11/14	Continue Development	
11/17-11/21	Continue Development	
11/24-11/28**	--	
12/01-12/05	Demonstrations	Demonstrations (40%) /Status Report (2%) / Team Presentation (10%)
12/08-12/12	Finals Week	

IMPORTANT DATES:
08/18: First Day of Class
[1]09/01: Labor Day (no classes)
[2]11/24 – 11/28: Thanksgiving Break (no classes)
[3]12/05: Reading Day (no classes)
12/12: Last Day of Session
See UNT Fall 2025 Semester Calendar