



CSCE 4905: Information Technology Capstone

Instructor: Dr. Jonathon Doran, Jonathon.Doran@unt.edu

Office: Hall Park 126

Office Hours: M,T,R 4:30pm-5:30pm and by appointment, in CHEC 148.

Overview

Students demonstrate their mastery of the breadth of computer science learned in their studies. Focus is on the application of computer science techniques to the design of applications involving multiple software components. Students apply the theory acquired from numerous computer science courses to solve real-world design and developmental problems. The design considers realistic constraints including economic, environmental, critical thinking, technical writing and communications skills, and group management skills in completing their design and development project.

Objectives

1. Gather and refine user functional requirements and other functional and nonfunctional requirements and constraints for a large-scale information system, and create a system requirements specification document.
2. Perform system analysis and design tasks using recognized software engineering methods to create a preliminary design specification for a system based on a requirements specification.
3. Utilize software 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 information systems project.
5. Create initial test and documentation plans for a project.
6. Utilize configuration management, project management and design tools in the course of the project.
7. Understand the classification and characteristics of large computing systems.
8. Demonstrate the ability to perform common systems installation, integration, maintenance, and administration tasks

Textbook

None

Final Examination

None. You will submit your team reflection report during finals week.

Grade Calculation

Team Project Deliverables	50%
Reflections and Individual Assignments	15%
Presentations	20%
Peer, Client and Instructor Performance Reviews and Attendance	15%
Total	100%

Letter grades will be determined as follows:

A \geq 90%, B \geq 80%, C \geq 70%, D \geq 60%, F < 60%

I reserve the right to lower the threshold for letter grades (in your favor).

If you believe that there is a mistake in the grading of one of your assignments, you must bring these inquiries to the professor within one week of when the assignment is returned. After this period, it is too late with the exception of an arithmetic error in calculating the score.

Policies

Late Assignments

Late assignments are not accepted unless arrangements are made in advance. Requests for extensions must be made before the due date, in person, and must be for a valid "emergency" reason.

Attendance

Attendance and participation are required. You are responsible for all discussion, lecture and other important information disseminated during the lecture, regardless of whether you attend or not. You are also responsible for all assignments made by deliverable leads.

You should plan to spend, on average, about 10-15 hours per week outside of the normal class meetings. As deadlines draw near, the time commitment may increase.

Note that we will not have lectures every week, but I will meet with teams during the lecture period.

Project Participation

Each person on the team needs to participate in the implementation of the project, as well as the written/verbal artifacts. Failure to do so will result in a **ZERO** for the affected deliverable. Repository check-ins will be checked by the instructor/TAs. It is your responsibility to make sure that your work is properly submitted under your own ID. The repository content is the final authority on who has done what during the semester. If you feel that the repository is in error, you must contact me immediately. After one week, no appeals will be processed. That is more than enough time for you to check to see that you have properly turned in your work.

It is not an acceptable excuse to say that your team did not give you enough work, because I expect you to speak up and volunteer if you are not contributing your fair share! If you have a problem that you are not able to work out with your team, please contact me to mediate prior to project submission (and as early as possible).

Other Policies

Americans with Disabilities Act Statement: The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable 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 a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time, however, ODA notices of reasonable 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 reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Office of Disability Accommodation website at: <http://www.unt.edu/oda>. You may also contact them by phone at 940.565.4323.

Academic Misconduct: Academic Integrity 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 range from a verbal or written admonition to a grade of "F" in the course. Further sanctions may apply to incidents involving major violations. You will find the policy and procedures at: <http://facultysuccess.unt.edu/academicintegrity>.

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 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. The Code of Student Conduct can be found at: <https://deanofstudents.unt.edu/conduct>.

Sexual Discrimination, Harassment & Assault: UNT is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these acts of aggression, please know that you are not alone. The federal Title IX law makes it clear that violence and harassment based on sex and gender are Civil Rights offenses. UNT has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more. UNT's Dean of Students' website offers a range of on-campus and off-campus resources to help support survivors, depending on their needs http://deanofstudents.unt.edu/resources_0 The UNT Survivor Advocate can be reached by emailing SurvivorAdvocate@unt.edu or calling 940-565-2648. You are not alone. We are here to help.

Emergency Notification & Procedures: UNT uses a system called Eagle Alert to quickly notify you with critical information in an event of 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 www.my.unt.edu. Some helpful emergency preparedness actions include: 1) ensuring you know the evacuation routes

and severe weather shelter areas, determining how you will contact family and friends if phones are temporarily unavailable, and identifying where you will go if you need to evacuate suddenly. In the event of a university closure, your instructor will communicate with you through Canvas regarding assignments, exams, field trips, and other items that may be impacted by the closure.

Syllabus Revisions

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

Assignment Summary

There are a lot of assignments in this course. In Software Engineering (3444) you learned a lot of skills which you will use this term. Most assignments are done as a group, and I expect that the work to be divided among team members. Individuals will receive a grade based on the quality of the deliverable and their individual contribution.

See Canvas for assignment descriptions and requirements.

Tentative Class Schedule (subject to change)

Date	Topics	Due this week
Week 1 16-Jan	Lecture: Course overview, team formation, project planning	Meet Your Instructor/Introduce Yourself, Introduction Assignment due Sunday @ 11:59pm
Week 2 23-Jan	Lecture: Discuss project ideas	
Week 3 30-Jan	Team Formation and Project Selection	Team Proposal Due, Sunday @ 11:59
Week 4 6-Feb	Lecture: Project Planning	Deliverable Plan for Project Plan, Status Report 1
Week 5 13-Feb	Lecture: Requirements, Meet with Teams	Project Plan, Deliverable Plan for System Requirements Specification, Deliverable Report for Project Plan
Week 6 20-Feb	Work Week	Status Report 2
Week 7 27-Feb	Lecture: Testing	System Requirements Specification
Week 8 5-March	Presentations	Requirements Review Presentations, Deliverable Report for SRS,

		Status Report 3
Spring Break		
Week 9 19-March		Midterm Peer Review, Deliverable Plan for Preliminary Design Specification, Status Report 4
Week 10 26-March	Presentations	Preliminary Design Specification, Deliverable Plan for Detailed Design Specification, Requirements Review Presentation
Week 11 2-Apr		Deliverable Report for Preliminary Design Specification, Status Report 5
Week 12 9-Apr	Presentations	Design Review Presentation, Detailed Design Specification
Week 13 16-Apr		Status Report 6
Week 14 23-Apr		
Week 15 30-Apr		Status Report 7

Status Reports are due each Sunday, starting with week #2.