

CSCE 2110: Foundations of Data Structures

Syllabus: Summer 2026

Instructor: Bahareh Dorri

Office: E235F

Office Hours:

Email: Bahareh.mokarramdorri@unt.edu

Lecture Class Time: 2:00 pm – 3:50 pm Tuesdays & Thursdays

Place: FRLD 380

Grader:

TA: Raushan Pandit

Email: RaushanPandit@my.unt.edu

Online Office Hours: 1:00 pm - 3:00 pm Wednesdays via Zoom:

<https://unt.zoom.us/my/rkumarpandit>

Course Description

Introduce students to the basics of more organized software developments. This includes the basics of using Integrated Development Environments (IDE), proper debugging and testing strategies, and the use of code repositories. Students will be expected to work in teams to develop programming solutions in C or C++. Additionally, the effective use of regular expressions to parse text and the use of hash tables to store data will be covered. By the end of the foundation courses, each student will have a solid foundation in conceptual and formal models and levels of abstraction as used in the field of computer science, as well as greater proficiency in software development.

Course Outcomes

Course Outcomes are measurable achievements to be accomplished by the completion of the course. These outcomes are evaluated as part of our ABET accreditation process.

1. Demonstrate the ability to use modern software development tools to design, build, test and debug large-scale software applications individually and in project teams

2. Use abstraction in the design and implementation of algorithms, such as sorting and searching algorithms and data structures.
3. Design and implement programming solutions to problems in C or C++.
4. Collaborate with other students in a team towards the design and development of programming solutions, utilizing code repositories and other modern collaboration tools and techniques
5. Use regular expressions in C/C++ programs to match patterns.
6. Use of stacks, queues, linked lists, hash tables, trees and graphs in design and construction of software solutions to complex problems.

Course Structure

This course takes place 100% in person. There are 10 weeks of content. I will open up a new module roughly every week.

Required Textbook

We are using an E-Book this semester as the required textbook.

zyBook:

CSCE 2110: Foundations of Data Structures

zyBook code:

UNTCSC2110MokarramdorriSummer2026

zyBook ISBN:

979-8-203-28856-1

To do the **assignments**, follow these steps:

1. Click any zyBooks assignment link in Canvas (Do not go to the zyBooks website and create a new account)
2. Subscribe

Prerequisites

Completion of CSCE 1040 with a grade of C or better.

Communication Expectations

Connect with me through email and/or by attending office hours. I will strive to respond to your emails within 1 business day and make grades of each homework/exam within two weeks after the due date.

Please write the course number and section number in your email subject line.

If you contact me and do not receive a response within two business days, please send a follow up email. A gentle nudge is always appreciated.

All course related announcements will be on Canvas. Please setup your notification settings to avoid missing any announcements. Please check CLEAR Online Communication Tips at <https://clear.unt.edu/online-communication-tips>.

I reserve the right to modify course policies, the course calendar, assignment or project point values, and due dates.

For assistance with assignments or questions about grading of a particular assignment, you may also contact the TA assigned to this directly via e-mail or their office hours.

Course Requirements:

Attendance: Required - student is responsible for all materials covered in lecture and class discussion and there will be occasional quizzes in class.

Assignments: There will be some larger programming assignments, quizzes, exams and laboratory exercises to complete.

Course Plan

You will have readings and small participation and Challenge Assignments that you must complete before coming to each class period. In class we will review the material for the day and any questions. At least one class period each week we will focus on developing some code in class, usually related to your homework or lab assignments. We will also be doing some special activities related to broadening your critical thinking, Problem solving and communications skills as it relates to a professional workplace.

The detailed calendar will be available in Canvas

Grading

- ZyBooks Participations and Challenges 10%
- Quizzes 10%
- Projects (Groups) 30%
- Assessment Exams 30%
- Labs/Homework 20%

A: 90-100; B: 80-89; C: 70-79; D: 60-69; F <60

Tentative Course Schedule:

Week	Topics
1	Introduction & Linked List, Stacks and Queues
2	Complexity
3	Searching and Sorting Algorithm
4	Project Management & Exam1
5	Graphs
6	Graphs & Trees
7	Trees & Hash Table
8	Hash Table & Exam 2
9	Regular Expressions & GREP

10	Review & Final Exam
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- This schedule is tentative and subject to change at the instructor's discretion. Changes will be announced in Canvas. The instructor reserves the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course.
- This course has digital components. To fully participate in this class, students will need internet access to reference content on the Canvas Learning Management System. If circumstances change, you will be informed of other technical needs to access course content. Information on how to be successful in a digital learning environment can be found at [Learn Anywhere \(https://online.unt.edu/learn\)](https://online.unt.edu/learn).
- Grades will be posted on Canvas throughout the semester to provide an ongoing assessment of student progress, but typically about 10-15 calendar days after the assignment was due. **Grading discussion should first go to the TA graded your assessment in 5 calendar days after grades posted, but if a resolution cannot be reached between the student and the grader, then you should go to the instructor who will have the final decision on the grade. After 5 calendar days, barring an exceptional circumstance, grades will not be altered.**

Any work must be turned in on their due dates.

We do not accept submissions by email.

Students will be notified by Eagle Alert if there is a campus closing that will impact a class and describe that the calendar is subject to change, citing the [Campus Closures Policy \(https://policy.unt.edu/policy/15-006\)](https://policy.unt.edu/policy/15-006).

While working in laboratory sessions, students are required to follow proper safety procedures and guidelines in all activities requiring lifting, climbing, walking on slippery surfaces, using equipment and tools, handling chemical solutions and hot and cold products. Students should be aware that UNT is not liable for injuries incurred while students are participating in class activities. All students are encouraged to secure adequate insurance coverage in the event of accidental injury. Students who do not have insurance coverage should consider obtaining Student Health Insurance. Brochures for student insurance are available in the UNT Student Health and Wellness Center. Students who are injured during class activities may seek medical attention at the Student Health and Wellness Center at rates that are reduced compared to other medical facilities. If

students have an insurance plan other than Student Health Insurance at UNT, they should be sure that the plan covers treatment at this facility. If students choose not to go to the UNT Student Health and Wellness Center, they may be transported to an emergency room at a local hospital. Students are responsible for expenses incurred there.

Course Attendance Policy

Students are encouraged to attend all lectures in order to gain the full benefit of the course. While I will be posting my slides before class, they will not contain all of the content discussed during class, nor the examples presented on the board.

Students will be responsible for any missing class or announcements. The absence reason could be anything including university sponsored events. Also, the student's absence does not change the due date of any assignment.

Recitation Policy:

Recitations will be used to facilitate development of the projects for this course. As such, they are mandatory and failure to attend recitations may result in overall poor project outcomes. Further, failure to attend recitation on time will result in a student not receiving credit for the recitation. Quizzes will occur during recitations.

Submission Policy:

All projects are expected to be submitted on time with all of the correct parts through the Canvas system. The project documentation must be created as a wiki page in GitLab, and no photographed or scanned content will be scored. Further, any content that is deemed illegible will not be scored. The program must be coded in C or C++ and contain ample comments and descriptions. All programs will be compiled and executed on the department's CSE servers, and any that fail to compile or execute on that system will lose points. Additionally, a README file, in .txt format, with clear instructions on how to compile and execute your program must be included.

Content Responsibility Policy:

Students are responsible for all content presented in class and during recitations. While attendance will not be taken in class, you will be expected to know and understand the requisite topics and concepts. If you are confused or unsure about anything, please ask the instructor or the TA's.

Make-up Work Policy :

For most situations there will be no make-up work for any assessment in this course. However, in the event of an unavoidable absence for one of the reasons below, email the

instructor as soon as possible so we can work out a solution. The following events are grounds for make-up work: being a participant in a conference

Additionally, in the case of a missed assignment due to illness, make-up work will only be allowed by the instructor to receive further notification from the Dean of Students. Students are responsible for sending an email to the Dean of Students with a physical copy of a signed doctor's note. See the [UNT Attendance Policy](#) for more information.

A student is responsible for requesting an excused absence in writing, providing satisfactory evidence to the **Dean of Students (deanofstudents@unt.edu)** to substantiate excused absence, and the Dean of Students will send the notification to the faculty member assigned to the course for which the student will be absent. When an absence is excused, the faculty member will provide a reasonable time after the absence for the student to complete the assignment.

Because there are group projects, if one group member is caught cheating the consequences of their actions will extend to the group as a whole. It is the responsibility of all group members to ensure that when they put their names on their submission as a whole and submit it, the submission does not contain any instances of cheating. Failure to report known instances of cheating within a group will be deemed facilitation of academic dishonesty and reported as such.

Late Work Submission Policy:

All projects may be submitted up to one day late at a 10% penalty. Any projects submitted two or more days after the due date will receive a 0.

Academic Integrity and Collaboration:

UNT policy 06.003 defines the following breaches of academic integrity:

A. Cheating. The use of unauthorized assistance in an academic exercise, including but not limited to:

- a. use of any unauthorized assistance to take exams, tests, quizzes or other assessments;
- b. usage of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; usage without permission, of tests, notes, or other academic materials belonging to instructors, staff members, or other students of the university;

c. dual submission of a paper or project, or resubmission of a paper or project to a different class without express permission from the instructor;

d. any other act designed to give a student an unfair advantage on an academic assignment.

B. Plagiarism. Use of another's thoughts or words without proper attribution in any academic exercise, regardless of the student's intent, including but not limited to:

a. the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgement or citation.

b. the knowing or negligent unacknowledged use of materials prepared by another person or by an agency engaged in selling term papers or other academic materials.

C. Forgery. Altering a score, grade or official academic university record; or forging the signature of an instructor or other student.

D. Fabrication. Falsifying or inventing any information, data or research as part of an academic exercise.

E. Facilitating Academic Dishonesty. Helping or assisting another in the commission of academic dishonesty.

F. Sabotage. Acting to prevent others from completing their work or willfully disrupting the academic work of others.

Cheating of any sort will not be tolerated in this course. All submissions must be your own original work. Taking information or code from the internet or other students is considered a breach of academic integrity. Failure to adhere to these strict standards will be cause for disciplinary action that could be as severe as expulsion from the university. **If it is determined a student cheated on any assignment in this course they will receive an F for their final course grade and an academic integrity report will be filed with the Office of Academic Integrity.** Further, UNT is now maintaining a database recording any acts of academic dishonesty that is available to employers. Additionally, because these are group projects, if one group member is caught cheating the consequences of their actions will extend to the group as a whole. It is the responsibility of all group members to insure that when they put their names on their submission as a whole and submit it, the submission does not contain any instances of cheating. Failure to report known instances of cheating within a group will be deemed facilitation of academic dishonesty and reported as such. For more information see the UNT Student Academic Integrity Policy.

Collaboration Policy: For each project submission, all work is expected to be your own. While you should be working with your group members, you are not to collaborate with other groups for projects, provide solutions to other groups, search for solutions on the internet, or purchase solutions. Doing so will be deemed a breach of academic integrity. However, for any non-graded, practice assignments students are encouraged to work together to solve problems.

All students are required to know, observe and help enforce the UNT Code of Student Academic Integrity. Academic dishonesty will result in disciplinary action according to [UNT Policy 06.003](#). The penalty for any offense can range from a formal warning to an 'F' for the course. Regardless of the penalty imposed, a record of the offense will be kept in the Office of the Dean of Students. Please find the Department Academic Integrity Guidelines [here](#).

Disabilities Accommodation

ODA: 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 accommodation 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**.

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 in-class announcements.