CSCE 2100 Foundations of Computing

Syllabus: Fall 2025

Instructor: Bahareh Dorri
Office: E235F

Office Hours: 11:00 am - 12:00 pm Mondays & Wednesdays

Email: Bahareh.mokarramdorri@unt.edu

Lecture Class Time: 10:00 am – 11:20 am Tuesdays & Thursdays

Place: B190

Graders:

IA: Sai Sri Harsha Chakravarthula
Email: SaiSriHarshaChakravarthula@my.unt.edu
Office: TBA
In-Person Office Hours: 1:30 pm - 2:30 pm Wednesday**s**
Online Office Hours: 2:30 pm - 3:30 pm Tuesdays via Zoom (link)

TA: Md Amit Khan
Email: MdAmitKhan@my.unt.edu

TA: Leif Messinger
Email: LeifMessinger@my.unt.edu

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 or IA assigned to this directly via e-mail or their office hours.

Course Structure

This course takes place 100% in person. There are 16 weeks of content. I will open up a new module roughly every week.

Required Textbook

We will be using an online textbook this semester through zyBook.

zyBook:

CSCE 2100: Foundations of Computing

zyBook code:

UNTCSCE2100DorriFall2025

zyBook ISBN:

979-8-203-10033-7

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

Optional Reference Textbook

The Foundations of Computer Science, by Alfred Aho & Jeffrey Ullman
http://infolab.stanford.edu/~ullman/focs.html

Course Description

Introduces students to both data structures and formalism used in computer science, such as asymptotic behavior of algorithms. Data structures and the formalism used to both

describe and evaluate those data structures simultaneously. By the end of the two-semester sequence of which this course is the first part, each student will have a solid foundation in conceptual and formal models, efficiency, and levels of abstraction as used in the field of computer science.

Expected Student Outcomes

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

1. Define and use the basic operations of sets, functions, and relations.

2. Define and demonstrate the basic properties of trees and graphs.

3. Use elementary graph and tree algorithms including traversals and searches.

4. Describe assertions in propositional logic form.

5. Describe simple circuits, I/O, and satisfiability using Boolean logic.

6. Use combinatorics and conditional probability in solving real-world problems.

7. Demonstrate a solid foundation in conceptual and formal models by describing loop structures in summation and/or product notation.

8. Demonstrate an introductory knowledge of finite state machines.

Grading

- o zyBook Activities & Assignments   20%

- o Practice Problems   10%

- o Quizzes   15%

- o Exam 1 & 2   30%

- o Exam 3   25%

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

Tentative Course Schedule:

Week	Topics	Quizzes
1	Intro; Abstraction & Data Models	
2	Abstraction & Data Models; Sets	Quiz 1
3	Relations	
4	Relations	Quiz 2
5	Graphs	
6	Graphs; Trees;	Quiz 3
7	Review Exam 1 & Exam 1	
8	Propositional Logic	
9	Propositional Logic	Quiz 4
10	Boolean Algebra	Quiz 5
11	Automata Theory	
12	Review Exam 2 & Exam 2	Quiz 6
13	Combinatorics and Counting	Quiz 7

14	Instruction Counting	
15	Thanksgiving-No Class	
16	Review & Exam 3	

- o 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).

- o Students are expected and encouraged to attend classes. 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.

- o Practice Problems will be done in recitation classes.

- o 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/IA 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).

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

Purpose:
Regular attendance is essential for your success in this course.
Participation in class activities, discussions, and group work contributes significantly to your learning and to the overall course experience.

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 me 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 in which you are presenting; being in an athletic or other UNT associated event in which you are an active participant; a family emergency; a severe illness; military duty; or in certain cases and with some restrictions a religious event. 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.

Academic Integrity

In this course, I want you to engage deeply with the materials and develop your own critical thinking and writing skills. For this reason, the use of Generative AI (GenAI) tools like Claude, ChatGPT, Gemini, etc. is not permitted. While these tools can be helpful in some contexts, they do not align with our goal of fostering the development of your independent thinking. Using GenAI to complete any part of an assignment, exam, or coursework will be considered a violation of academic integrity, as it prevents the development of your own skills, and will be addressed according to the Student Academic Integrity policy. Additionally, tools like Grammarly, spellcheck, predictive text, speech-to-text, and translation tools, etc. are not allowed as they blur authorship and misrepresent your independent work. All work must be your own.

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]().

Cheating Policy:

- Using information from a homework helper site (including AI based services like Chat GPT) is CHEATING

- Duplicating/nearly duplication answers from another student/another groups submission is CHEATING

- First Offense: 0 for the entire submission

- Second Offense: F for the course

Disabilities Accommodation

The University of North Texas complies with Section 504 of the 1973 Rehabilitation Act and with the Americans with Disabilities Act of 1990. The University of North Texas provides academic adjustments and auxiliary aids to individuals with disabilities, as defined under the law. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring accommodation, please see the

instructor and/or contact the Office of Disability Accommodation at 940-565-4323 during the first week of class.

<u>Syllabus Revisions</u>

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.