

CSCE 1030.001: COMPUTER SCIENCE I

Summer 2026

Course Instructor: Dr. Pradhumna Shrestha

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- Include CSCE 1030.001 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.

Lecture Class Time: TuTh 3:30PM - 5:20PM @ NTDP K110

Office Hours: As needed via appointment, email me.

Teaching Assistants:

- **Haiyan Sun**
haiyansun@my.unt.edu
- **Xin Gao**
xingao@my.unt.edu

Required Textbook: We are using an e-book called zyBook this semester.

How to use zyBook for assignments?

1. Open the assignment on Canvas (**NOT zyBook**).
2. Click on the load assignment tab and it will take you to the Zybook page.
3. **For the first time only, subscribe.**
 - **Click on your zyBooks link in your learning management system (Do not go to the zyBooks website and create a new account)**
 - **Subscribe**
4. Complete your assignment.
5. Verify your grade on Canvas for the assignment. It's auto-graded and hence should appear immediately. If the grade shows a different number, something went wrong.

Optional Reference Textbook: Problem Solving with C++, Tenth Edition, by Walter Savitch, Textbook: Addison-Wesley, 2018. ISBN 978-0-13-444828-2.

Canvas

This course will use the Canvas learning management system (LMS) to distribute course materials, communicate and collaborate online, post grades, and submit assignments. You are responsible for checking the Canvas course site regularly for class work and announcements.

CATALOG DESCRIPTION

Introduction to computer science and engineering, problem-solving techniques, algorithmic processes, software design and development.

Prerequisite(s): MATH 1100 and CSCE 1010 (for CSE majors only), each with a grade of C or better.

Corequisite(s): CSCE 1015 (for CSE majors only).

COURSE DESCRIPTION

CSCE 1030 is the introductory course for the computer science, computer engineering and information technology degrees offered by the Department of Computer Science and Engineering. As such it introduces students to the broad discipline of computing while placing emphasis on developing students' programming skills. In addition to two 1-hour 50-minute "lecture" classes per week, each student will participate in two 2-hour 50-minute lab sessions each week.

TOPICS (subject to change)

1. Basic CPU Architecture
2. Basic Data Types
3. Program Structure and Design
4. Algorithms
5. Comments
6. Basic Compiler understanding and operation
7. Pre-processor instructions
8. Expressions, statements and operators
9. Arithmetic and logical expressions
10. Loops and conditionals and other flow control
11. Functions
12. Arrays
13. Console I/O both C style and C++ style
14. Pointers
15. File I/O both styles
16. Strings both CStrings and String class
17. Structures and unions
18. Command Line Arguments
19. Using libraries
20. Debugging

COURSE OUTCOMES

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

1. Describe how a computer's CPU, Main Memory, Secondary Storage and I/O work together to execute a computer program.
2. Make use of a computer system's hardware, editor(s), operating system, system software and network to build computer software and submit that software for grading.
3. Describe algorithms to perform "simple" tasks such as numeric computation, searching and sorting, choosing among several options, string manipulation, and use of pseudo-random numbers in simulation of such tasks as rolling dice.

4. Write readable, efficient and correct C/C++ programs that include programming structures such as assignment statements, selection statements, loops, arrays, pointers, console and file I/O, structures, command line arguments, both standard library and user-defined functions, and multiple header (.h) and code (.c or .cpp) files.
5. Use commonly accepted practices and tools to find and fix runtime and logical errors in software.
6. Describe a software process model that can be used to develop significant applications composed of hundreds of functions.
7. Perform the steps necessary to edit, compile, link and execute C/C++ programs.

ABET PROGRAM OUTCOMES

Computer Engineering Students:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Computer Science Students:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Apply computer science theory and software development fundamentals to produce computing-based solutions.

Information Technology Students:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

ADA STATEMENT

The University of North Texas makes reasonable accommodations for students with disabilities. To request accommodations, you must first register with the Office of Disability Access (ODA) by completing an application for services and providing documentation to verify your eligibility each semester. Once your eligibility is confirmed, you may request your letter of accommodation. ODA will then email your faculty a letter of reasonable accommodation, initiating a private discussion about your specific needs in the course.

You can request accommodations at any time, but it's important to provide ODA notice to your faculty as early as possible in the semester to avoid delays in implementation. Keep in mind that you must obtain a new letter of accommodation for each semester and meet with each faculty member before accommodations can be implemented in each class. You are strongly encouraged to meet with faculty regarding your accommodations during office hours or by appointment. Faculty have the authority to ask you to discuss your letter during their designated office hours to protect your privacy. For more information and to access resources that can

support your needs, refer to the Office of Disability Access website (<https://studentaffairs.unt.edu/office-disability-access>).

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>.

GRADING POLICY

Your course grade will be a weighted average according to the following:

- Attendance/Class Participation 5%
- Participation Activities 5.0%
- Challenge Activities 10.0%
- Lab Assignments 15.0%
- Projects/Homework Assignments 1-2 (5% +10% each) 15%
- Programming Exam 1 20.0%
- Programming Exam 2 25.0%
- Final Exam 5%

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.

Once a grade is posted on Canvas, students have one week to dispute the grade. The proper channel for grade disputes is to first go to the original grader (either 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.

Participation and Challenge Activities: The participation and challenge activities grades will be based on the timely completion of assigned Participation Activities and Challenge Activities, respectively, in the required zyBook e-book. **Pay special attention to see that your Zybook scores match your Canvas scores for these activities. Your assignments are autograded, so your Canvas score must populate immediately after you submit on Zybooks. If they don't start the activity on Canvas and submit again. You have two (2) weeks after the grade is available to dispute the grade if they do not match, unless otherwise instructed. You can also email support@zybooks.com to get technical support from Zybooks, please copy me in the email.**

Lab Assignments:

Lab assignments will be assigned and must be completed by the deadline. The lab assignment will be available at 12.01 AM and will be due on 11.59 PM on the day of the lab. Late submissions will not be accepted. If you are late by a few minutes, email me. I may accept the assignment with a possible late penalty depending on circumstances.

Attendance is required to get the grade for the lab. Each lab assignment will be graded using the average of all lab components based on a 0/50/75/100 scale for each component. A missed lab due to tardiness or absence may result in a grade of 0 for the missed lab. The lowest lab assignment grade will be dropped.

Projects:

There will be two projects assigned during the semester. **Late submissions will not be accepted** and receive a grade of 0. If you are late by a few minutes, email me. I may accept the assignment with a possible late penalty depending on circumstances.

Programming assignments are designed to help you practice your coding on a larger project with various functionality. If you are having trouble with an assignment, please consult with your instructor/TAs associated with the class, or you can schedule an appointment with me.

Programming Exams:

The programming exams will be given to assess the student's programming ability. The exact date of the exam will be posted on Canvas and/or announced in class at least one week prior to the date of the exam. A make-up exam will be given at the discretion of the instructor when a student misses an exam with an excused absence. Unexcused absences on the date of an exam will result in a grade of 0 for the missed exam, so every effort should be made to attend class on the day of a scheduled exam.

Final Exam:

The final exam will be given on Thursday, July 23rd during lecture hours. The exam will be given on Canvas and can be taken remotely. You will need Lockdown Browser and a functioning web camera, speaker and microphone to take the test. More information about the final exam will be provided a few weeks before the exam.

ATTENDANCE POLICY

Lecture Section:

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. If there are extenuating circumstances preventing you from attending the class, please notify your instructor so that you can work together to ensure your success in learning the material.

Lab Section: Students are expected to attend and be on time for their assigned weekly lab section. Attendance is required to be able to submit the lab. If you anticipate being unable to attend your regular lab section with a valid excuse, you must contact your instructor in advance of your lab section and before the lab is closed. Failure to do so may result in you being counted as absent for the lab and will result in a zero (0) in the assignment. The instructor has the final say as to whether or not an absence is excused.

Make-up Labs: If you have to miss your lab assignment/programming exam due to unavoidable circumstances such as health or other university engagements, you may be granted permission to complete your lab at a different time with instructor permission. To request permission, you need to email the instructor with the following information:

- **Which lab are you missing? Provide date and time.**
- **Why are you missing the lab? Attach documentation such as receipts, doctor's note, etc. for proof.**
- **When do you want to make up the lab? Provide date and time.**

Requests for make-up labs without this information will not be considered.

CLASS NOTES AND PROGRAMMING EXAMPLES

The lecture slides will be available on Canvas.

The programming examples provided in the class will be on the CSE servers inside my public folder. You will need an SSH client to access the server and an SFTP client to download my examples to your personal computer. I will demonstrate in the class how to do these. An announcement will be posted on Canvas for future reference.

You can also bring your own computer to the class and type along with me during the programming demonstrations.

ACADEMIC INTEGRITY

This course follows UNT's policy for Student Academic Integrity which 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 (posted on Canvas). 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. Collaboration with other students is only acceptable for lab assignments that are not given as part of an exam. And although you may seek assistance from your TA/IA, Peer Mentors, and other students during the lab session for non-exam lab assignments, you are still required to work on your own lab assignment and turn in your individual work to Canvas before the lab session is complete, unless directed otherwise. Individual programming assignments (i.e., projects) given outside of the lab in this course are meant to be problem-solving exercises and must be the sole work of the individual student. **You should not work with other students on shared program solutions or use program solutions found on the Internet or use answers from Generative AI/LLMs such ChatGPT, Gemini, Copilot, etc.** Specifically, you should never copy someone else's solution or code, and never let a classmate examine your

code. A sophisticated program will be used to compare your work to the work of all other students (including students in past classes). If you are having trouble with an assignment, please consult with your instructor, TAs, IAs, or Peer Mentors associated with the class. You must do your own work on participation and challenge assignments as well as exams. There should be no ambiguity here. In case the above description and 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.

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.

STUDENT RESPONSIBILITY

Students are responsible for submitting the correct assignments (i.e., uploading the proper files) for each applicable assignment submission on Canvas. In certain cases, when an assignment is submitted on time, but to an incorrect assignment location (e.g., submitting Lab 04 to Lab 05 location on Canvas), the assignment may be assessed a 30% reduction penalty if the due date has passed. If you have any questions or concerns about your submission, please work with your instructor, TA, IA, or Peer Mentor to ensure the correct file(s) is/are submitted.

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

Day	Lecture	Day	Lab
05/19	Syllabus, Section 1	05/19	-
05/21	Section 2	05/21	Lab 1
05/26	Section 2	05/26	-
05/28	Section 3	05/28	Lab 2
06/02	Section 3	06/02	Lab 3
06/04	Section 4	06/04	Lab 4
06/09	Section 5	06/09	Lab 5
06/11	Section 5, Review	06/11	Lab 6
06/16	Section 6	06/16	Programming Exam 1
06/18	Section 6	06/18	Lab 7
06/23	Section 7	06/23	Lab 8
06/25	Section 7	06/25	Lab 9

06/30	Section 7	06/30	Lab 10
07/02	Section 8	07/02	Lab 11
07/07	Section 9	07/07	Lab 12
07/09	Section 9, Review	07/09	Lab 13
07/14	Section 9	07/14	Programming Exam 2
07/16	Section 10	07/16	Lab 14
07/21	Section 11, Review	07/21	-
07/23	Final Exam	07/23	-