COMPUTER SCIENCE I
CSCE 1030- Section 001

Instructor: Dr. Pradhumna Shrestha
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Office hours: MWF 1:00 PM- 3:00PM and by appointment
Class hours: MWF 10:30AM - 11:20AM
Classroom: NTDP B185

COURSE DESCRIPTION
The objective of this course is to teach basic programming concepts. Topics such as basic introduction to computer systems and programming, variables and data types, program flow control, and reading from and writing into a file will be discussed. It is expected that, by the end of the course, the students would be able to write any complex programs using the concepts discussed throughout the semester. The high level language – C++ will be used as the platform of teaching and executing these concepts. Strong emphasis will be placed on laboratory activities that focus on program design and coding.

COURSE OUTCOMES
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) 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.

**TEXTBOOK**
Problem Solving with C++ (9th Edition)
Walter Savitch
Pearson, 2014
ISBN-10: 0133591743

**PRE-REQUISITES:** MATH 1650 with a grade of C or better.

**TOPICS TO BE COVERED**
1. Introduction to Computer and Programming
2. Algorithms and Program Design
3. Variables, Data Types and Type Casting
4. Looping and Branching
5. File Handling
6. Functions
7. Arrays
8. Strings
9. Pointers
10. Structures
SCHEDULE AND GRADING

- Attendance/Class participation: 5%
- Lab Assignment: 30%
- Quizzes: 10%
- Homework and Assignment: 15%
- Exam I (Feb 21-Feb 27): 10%
- Exam II (Apr 04-Apr 10): 10%
- Final Exam 05/08 (tentative): 20%

NOTES:

ATTENDANCE POLICY

Student attendance will be recorded. Every student who misses a class is responsible to learn the materials discussed and obtain the homework assigned on the missed class. The instructor is not responsible for re-teaching the material missed by a student who did not attend the class. Absence in class and lack of participation in class discussions may result in lowering of the grades.

ASSIGNMENTS

Homework and assignments will be provided in the form of coding and problem solving on Blackboard Learn. 25% points will be deducted if you turn in your assignments a day late. You will get only half of the points if you submit your assignment a week late. Assignment turned in after a week without instructor’s approval will receive zero points. It is expected of the students to show utmost sincerity and honesty in completing their assignments. While discussion among students is encouraged, sharing solutions and copying someone else’s work is strictly prohibited. Any student engaged in such activities will get no credit for their assignment.

QUIZZES

The quizzes will be asked every week in the laboratory hours. Each quiz will test you on the material discussed in the class a week before. The objective of the quiz is to keep the student up to date on course activities.
EXAM I/II
The midterm exams will be conducted during the student’s laboratory hours. The objective of this exam is to test the student’s programming ability. The students are expected to give the exams on their own, and no discussions or collaborations will be allowed.

FINAL EXAM
The final exam will be scheduled on the finals week. The exams will cover the topics discussed throughout the semester. The students are expected to give the exams on their own and no discussions will be allowed. The format of the exam will be provided at least two weeks before the exam date.

GRADING
If the students are not satisfied with their grades, they will have to schedule an appointment with the instructor at least 24 hours after receiving the grades. Classroom hours will not be used for discussing grades. Students are expected to keep track of their academic progress, grades will not be changed after 2 weeks of being provided.
You must pass BOTH the laboratory portion AND the lecture portion with a grade of D or better in order to pass this course. Hence, an overall average greater than 60% may still result in a failing grade in some cases.

EXTRA CREDIT
The students will get an opportunity to earn extra credit by solving take-home problems. The students are expected to solve the problems on their own. Any evidence of cheating will result in zero credit and no further opportunities to earn extra credit.

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.