

Course Name: Programming Language I

Course Code: CSE115

Credit Hours: 3

Faculty Information:

Name:

Designation:

Initials:

Email:

Office Hours:

Office Location:

Undergraduate Teaching Assistant: TBA

Course Description:

This is the first computer science programming course required for all computer science and engineering majors. This course introduces the fundamental concepts of structured programming. Topics include fundamentals of computers and number systems, algorithms & flowcharts, fundamental programming constructs: syntax and semantics of a higher-level language, variables, expressions, operators, simple I/O to console and files, conditional and iterative control structures, functions and parameter passing, dynamic memory allocation; fundamental data structures: arrays, structures, strings and string processing; and testing and debugging strategies.

Course Outcomes (COs):

SL	CO Description
1	use an integrated programming environment to write, compile, and execute a C program as well as apply debugging techniques to locate and resolve errors.
2	apply different programming elements such as variables, simple data structures (arrays/strings), selection structures, repetition structures, functions, structures, pointers, file manipulation, etc., to solve different problems.
3	design a simple information management system that requires using array of structures, functions, and file processing.

Lecture Plan:

Lecture	Topic
1	Introduction and Number Systems
2	Number Systems (Continues)
3	Overview of Computers and Programming
4	Overview of C
5	Overview of C (Continues)
6	Top-Down Design with Functions
7	Top-Down Design with Functions (Continues)
8	Selection Structures
9	Selection Structures (Continues)
10	Repetition and Loop Statements
11	Repetition and Loop Statements (Continues)
12	Repetition and Loop Statements (Continues)
13	Pointers and Modular Programming
14	Pointers and Modular Programming (Continues)
15	Mid-term Exam
16	Arrays
17	Arrays (Continues)
18	Strings
19	Strings (Continues)
20	Structures and Union Types
21	Structures and Union Types (Continues)
22	Recursion
23	Recursion (Continues)

Lecture	Topic
24	Review and other materials

Weightage Distribution:

Assessment Tools	Weight
Class Performance	10%
Quizzes	20%
Assignments and Viva	10%
Mid-term Exam	25%
Final Exam	35%
Total	100%

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Required Text Materials:

- “Problem Solving and Program Design in C”, 8th edition by J Hanly and E Koffman, Pearson.

Reference Text and Materials:

- Programming in ANSI C by E Balagurusamy
- H. Schildt (2000), C: The Complete Reference, 4th Ed., Osborne/McGraw-Hill
- C Programming Language, 2nd Edition by Brian W. Kernighan and Dennis M. Ritchie, Prentice Hall

Grading Policy:

We will follow the NSU grading policy (may be curved). Following is the link to the existing NSU grading policy.

<http://www.northsouth.edu/academic/grading-policy.html>Links to an external site.

Class Policies:

- **Course Structure:** This course will be delivered offline, and course materials will be shared through the Learning Management System CANVAS.
- **Quizzes and Exams:** There will be **THREE** quizzes. The best **TWO** quizzes will be counted for the final grading. There will be **ONE** midterm and **ONE** final exam.
- **Assignments:** All assignments for this course will be submitted offline. Assignments must be submitted by the given deadline. There will be **THREE** assignments throughout the whole semester. The best **TWO** assignments will be counted for the final grading.
- **Late Work Policy:** Be sure to pay close attention to deadlines—there will be no make-up assignments, quizzes, exams, or late work accepted without a serious and compelling reason and faculty approval before the due date. And there will be **PENALTY** for late submission.
- **Commit to Integrity:** As a student in this course (and at this university), you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class, and integrity in your behavior in and out of the classroom.
- **Academic Honesty Policy:** North South University system believes that academic honesty and integrity are fundamental to the mission of higher education. Students are responsible for the honest completion and representation of their work, appropriate citation of sources, and respect for others' academic endeavors. Students who violate these standards must be confronted and accept their actions' consequences. Academic misconduct includes, but is not limited to:
 - cheating on a quiz or examination;
 - collaborating with others in work to be presented, contrary to the stated rules of the course;
 - submitting a paper or assignment as one's work when a part or all of the paper or assignment is the work of another;
 - submitting, if contrary to the rules of a course, work previously presented in another course;
 - tampering with the laboratory experiment or computer program of another student;
 - knowingly and intentionally assisting another student in any of the above, including assistance in an arrangement whereby any work, classroom performance, examination, or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.