UNIVERSITY OF HARGEISA

COLLEGE OF COMPUTING & INFORMATION TECHNOLOGY

Course Syllabus

A. Course Information

1	**Course title**	Computer Programming-1
2	**Course number**	COMP
3	**Credit hours (theory, practical)**	3
4	**Prerequisite (if any)**	Introduction to Computer
5	**Co-requisite (if any)**	
6	**Program (s) in which the course is offered**	BS Computer Science, BS Information Technology
7	**Study level and semester**	1st Year – 2nd Semester
8	**Required/Elective**	Required
9	**Name of instructor (s)**	
10	**Contact**	
11	**Date of production/revision**	9/3/2022

B. Course Description

The course introduces the student to fundamental concepts of programming using the C++ programming language. Topics covered include basic programming tools, variable names, data types, operators and operands, conditional and iterative structures, program composition of functions and function definitions, parameter passing to functions, library function concepts are introduced.

C. Course Learning Outcomes (CLO)

Upon successful completion of this course students will be able to

- Understand the basic elements of a computer program including documentation, data declaration, and procedural operations
- Edit, translate, and execute a computer program
- Write programs that input data from keyboard/file and output to the console/file
- Apply control structures to alter the sequential flow of execution of program statements including selection and iteration structures
- Create user-defined functions, develop programs consisting of multiple functions, and master function parameter passing
- Correctly solve programming problems and learn how to develop algorithms
- Examine the internal representation of two- and three-dimension arrays in C/C++

- Understand dynamic memory allocation, parameter passing, the use of pointers

D. Topic Outline and Schedule

Week	Topic	Evaluation Methods	Reference
1	**An Overview of Computers and Programming Languages**		**Chapter 1**
2	**Basic Elements of C++**		**Chapter 2**
3	**Input/Output**		**Chapter 3**
4-5	**Control Structures I (Selection)**	Homework 1	**Chapter 4**
6,7	**Control Structures II (Repetition)**		**Chapter 5**
8	**Midterm Exam**	Homework 2	
9-10	**User-Defined Functions I**		**Chapter 6**
11-12	**User-Defined Functions II**	Homework 3	**Chapter 7**
13	**User-Defined Simple Data Types, Namespaces, and the string Type**		**Chapter 8**
14	**Arrays and Strings**	Homework 4	**Chapter 9**
15	REVISION		
16	**FINAL EXAM**		

E. Teaching and Learning Methods

- Lectures
- Homework Exercises
- Group assignments
- Presentation

F. Evaluation Methods

Evaluation Type	**Weight**	**Expected Due Date**
Homework + participation	20%	
Midterm Exam	20%	
Final Exam	50%	
Group Assignments	10%	

G. Required equipment: (Facilities, Tools, Labs ….)

Data Show

H. Textbook/References

Required **1.** C++ Programming: From Problem Analysis to Program Design, 6th Edition
References: 1. How to program in C++ by Paul & Harvey Deitel, 8th Edition.

I. Course Policies:

Cheating	Cheating or copying on exam or quiz is an illegal and unethical activity. University of Hargeisa policy will be applied. All graded assignments must be your own work (your own words).
Attendance	• Excellent attendance is expected. • The University of Hargeisa policy requires the faculty member to assign ZERO grade (F) if a student misses 25% of the classes that are not excused. • If you miss class, it is your responsibility to find out about any announcements or assignments you may have missed.
Workload	• Average work-load student should expect to spend 6 hours per week.
Participation	• Participation in and contribution to class discussions will affect your final grade positively. Raise your hand if you have any question. • Making any kind of disruption and (side talks) in the class will affect you negatively.
Concerns or Complaints	• Concerns or complaints should be expressed in the first instance to the lecturer; if no resolution is forthcoming or it is a cross sections issue, then the issue should be brought to the attention of coordinator (for multiple sections) who will take the concerns to the coordination meeting.
University Regulations	For more details on university regulations please visit:

Name of Course Coordinator: ----------Signature: ---------- Date: ----------

Head of Department: ---------- Signature: ----------

Dean: ---------- -Signature: ----------