
MASINDE MULIRO UNIVERSITY OF SCIENCE & TECHNOLOGY
FACULTY OF SCIENCE
DEPARTMENT OF COMPUTER SCIENCE

COURSE CODE: CSC 111; TITLE: INTRODUCTION TO PROGRAMMING

INSTRUCTOR:

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Lecture Time: Monday- 9.00-11.00 Hours & Tuesday– 7.00- 10.00 Hours

PURPOSE

- To appreciate methodology of structured programming
- To appreciate methodology of modular programming.
- To appreciate the concept of data structures.

OBJECTIVES

At the end of this course, the student should be able to:

- ❖ Write programs using control structures
- ❖ Write programs using procedures.

COURSE CONTENT

WEEK 1 : Introduction

- High level languages
- Source code
- Object code
- Translators(interpreters and compilers)
- Overview of algorithms

WEEK 2: Program Elements

- preprocessor commands
- variables and data types
- **Assignment 1**

WEEK 3

- operators and expressions
- statements
- Blocks and comments.

WEEK 4 : Control structures

- Selection
 - *if*
 - *if-else*
 - *switch_case*
- *CAT 1*

WEEK 5: Iteration

Introd. to programming [1st YEAR-Bsc. (Computer Science & Information technology)]

- *for loop*
- *do-while loop*
- *while loop*

WEEK 6: Basic data Structures

- Introduction to Arrays.
- Single –dimensional arrays.

WEEK 7

- Multidimensional arrays
- **Assignment 2**

WEEK 8

- Records/ structures

WEEK 9: Modular programming

- Procedures

WEEK 10

- Functions.

TEACHING AND LEARNING METHODOLOGIES

- Lectures
- Class/ Group Discussions
- Case studies
- Questions
- Group Assignments/ Projects

The language of choice is C programming language.

MODE OF EVALUATION

- Assignments , Tests, practical exercises ----- 30 %
- Written / main Exam.----- 70 %

REFERENCES

- a. Harbinson Steele – C A reference manual.
- b. Peter Aitken, Brad L. Jones- Teach yourself C in 21 days
- c. Any other relevant books and relevant materials from the Internet.