



MURANG'A UNIVERSITY OF TECHNOLOGY

COURSE OUTLINE

Unit Code: SCS 101 **Unit Title:** Introduction to Computer Programming

Department: Computer Science

Lecturer's Name: Dr. Stephen Njenga

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Contact Hours: 42

Semester: 1 **Academic Year:** 2021/2022

Expected Learning Outcomes

1. Explain the basic terminology used in computer programming
2. Design programs using Flow Charts and Pseudocode.
3. Develop programs using control structures, data structures and Sub programs.

Teaching Methodology

1. Lectures and tutorials
2. Group discussions
3. Demonstration
4. Individual assignment

Instructional Materials

1. Projector
2. Text books
3. Computer laboratory
4. Design software
5. Simulators

Course Evaluation Methods

Assignments = 10 marks

CATs = 20 marks

Final Paper = 70 marks

Total = 100 marks

Core Reading Materials for the Course

1. Deitel, P. & Deitel, H. (2010), *C How to program*, Prentice Hall
2. Nath, D.K. (2010), *C Programming Essentials*, Pearson Education India
3. Gary, J. (2012), *A First Book of C++*, Course Technology, Cengage Learning

Recommended Reference Materials

1. King, K.N. (2008), *C Programming: A Modern Approach*, W.W. Norton & Company, ISBN-10: 0393979504, ISBN-12: 978-0393979503

WEEK NO.	TOPIC
1.	Programming Concepts and Program Development Process
2.	Algorithms: Pseudocodes and Flowcharts
3.	Introduction to C Programming: Format of a C Program
4.	CAT 1
5.	Operators, Variables and Datatypes
6.	Control Structures: Sequential and

	Selection
7.	Control Structures: Iterations
8.	Sub Programs
9.	Data Structures (Arrays and Records)
10.	CAT 2
11.	Pointers
12.	Revision
13.	Revision
14.	Exams