

UNITIZATION OF SYLLABUS & TEACHING PLAN

Department of MATHEMATICS

Bankura Christian College

B.Sc. Honours in Mathematics

3rd Semester (July to December, 2023), A.Y.: 2023 – 24

Skill Enhancement Course (SEC)

Subject: Mathematics

Paper: SEC – 1

Course Title: Programming Using C

Course Instructor: Dr Subhasis Bandyopadhyay

Course Learning Outcomes: This course will enable the students to:

- Learn basic concepts of Programming Language
- Understand and apply the programming concepts of C which is important for mathematical investigation and problem solving.
- Represent the outputs of programs visually in terms of well formatted text.
- Acquire skills for solving many real-life problems using C programming language.

Syllabus:

Unit- I:

Computer Language: Concept of Programming Language, Machine Language, Assembly Language, Compile, Source and Object Programs.

Unit- II:

Programming Language in C: C Character set, Keywords, Basic data types, Numeric constants and variable operators, Expressions, Assignment statements, I/O statements.

Control statements: Decision making and looping statements in C, *break*, *continue* and *goto* statements, Example of simple programs.

Unit- III:

Subscripted variables: Concept of array variables, rules for one dimensional subscripted variables in C, Simple programs.

Sub-program: Concept of subprogram, purpose of subprogram, definition of function and function prototype, Simple programs.

Reference Books:

1. B. W. Kernighan and D. M. Ritchie : The C-Programming Language, 2nd Edi.(ANSI Refresher), Prentice Hall.
2. E. Balagurnsamy : Programming in ANSI C, Tata McGraw Hill.
3. Y. Kanetkar : Let Us C ; BPB Publication
4. C. Xavier : C-Language and Numerical Methods, New Age International.

Teaching Plan:

MONTH & YEAR	WEEK	PORTIONS	No. of Lectures
August 2023 [Date of Commencement of Regular Classes: 16 - 08 - 2023]	1	-----	-----
	2	-----	-----
	3	Computer Language: Concept of Programming Language, Machine Language, Assembly Language, Compile, Source and Object Programs.	2
	4	Programming Language in C: C Character set, Keywords, Basic data types, Numeric constants and variable operators. Examples.	2
	5	-----	
September 2023	1	Expressions, Assignment statements, I/O statements. Examples.	2
	2	Examples of Simple C Programs	2
	3	Control statements: Decision making and looping statements in C, break, continue and goto statements, Example of simple programs - I	2
	4	Control statements: Decision making and looping statements in C, break, continue and goto statements, Example of simple programs - II.	2
	5	Examples of Simple C programs. P REVISIONS / CLASS TEST / ASSIGNMENTS	2
October 2023	1	Laboratory Assignments on simple C Program	2
	2	-----	-----
	3	-----	-----
	4	Puja Holidays (18-10-2023 TO 28-10-2022) As per Academic Calendar	-----
	5	Puja Holidays	-----
November 2023	1	Subscripted variables: Concept of array variables, rules for one dimensional subscripted variables in C, Simple programs - I.	2
	2	Laboratory Assignments on simple C Program	2
	3	Holidays (Kali Puja, Bhatriidwitiya etc.)(12-11-23 To 16-11-23)	
	4	Sub-program: Concept of subprogram, purpose of subprogram, definition of function and function prototype, Simple programs - II	2
	5	-----	
December 2023	1	Array variables and Sub-programs	2
	2	Simple C programs - Practice & Laboratory Assignments on simple C Program	2
	3	Revision & Laboratory Assignments on simple C Program / Class Test	2
	4	-----	-----
	5	Christmas Holidays & Study Leave	-----