



AGHOREKAMINI PRAKASHCHANDRA MAHAVIDYALAYA



ADD ON COURSE ON

Fundamentals on computer programming with C

(2021-22)

ORGANIZED BY

DEPARTMENT OF PHYSICS

IN ASSOCIATION WITH

**IQAC, AGHOREKAMINI PRAKASHCHANDRA
MAHAVIDYALAYA**

COURSE TITLE: Fundamentals on computer programming with C

COURSE DURATION: 36 HOURS(FROM 10.05.2022-31.05.2022)

COURSE OFFERED BY: Dept. of **Physics**,
A.K.P.C. Mahavidyalaya
Bengai, Hooghly

PARTICIPATING TEACHERS:

1. DR. SATYAKI KAR (Assistant Professor)
2. DR. SHAMPA MONDAL (Associate Professor)
3. DR. RAJIB KUMAR MANDAL (Assistant Professor)
4. SURAJIT GUIN (SACT)

COURSE COORDINATOR: Surajit Guin
(9734707361)

SYLLABUS:

1. INTRODUCTION:

HISTORY, BASIC STRUCTURE, ALGORITHMS, STRUCTURED PROGRAMMING CONSTRUCTS.

2. C PROGRAMMING ELEMENTS:

CHARACTER SETS, KEYWORDS, CONSTANTS, VARIABLES, DATA TYPES, OPERATORS- ARITHMETIC, RELATIONAL, LOGICAL AND ASSIGNMENT; INCREMENT AND DECREMENT AND CONDITIONAL, OPERATOR PRECEDENCE AND ASSOCIATIONS; EXPRESSIONS, TYPE CASTING. COMMENTS, FUNCTIONS, STORAGE CLASSES, BIT MANIPULATION, INPUT AND OUTPUT.

3. C PREPROCESSOR:

FILE INCLUSION, MACRO SUBSTITUTION.

4. STATEMENTS:

ASSIGNMENT, CONTROL STATEMENTS- IF, IF ELSE, SWITCH, BREAK, CONTINUE, GO TO, LOOPS-WHILE, DO_WHILE, FOR.

5. FUNCTIONS:

ARGUMENT PASSING, RETURN STATEMENT, RETURN VALUES AND THEIR TYPES, RECURSION

6. ARRAYS:

STRING HANDLING WITH ARRAYS, STRING HANDLING FUNCTIONS.

7. USER DEFINED DATA TYPES:

ENUMERATED DATA TYPES, STRUCTURES. STRUCTURE ARRAYS, POINTERS TO FUNCTIONS AND STRUCTURES, UNIONS.

**8. FILE ACCESS:
OPENING, CLOSING, I/O OPERATIONS.**

MODULES:

UNIT- 1

Brief introduction to computer programming: Basic structure and algorithm of programming. (Time: 6 Hours)

UNIT- 2

Programme elements: Character sets, operators. (Time: 4 Hours)

UNIT- 3

Use of c preprocessor. (Time: 7 Hours)

UNIT- 4

Statement of c programming: Assignment, control statement. (Time: 7 Hours)

UNIT- 5

Definition of functions (Time: 5 Hours)

UNIT- 6

Handling of string with arrays (Time: 7 Hours)

UNIT- 7

User defined data points. (Time: 7 Hours)

UNIT- 8

Opening and closing of file.

(Time: 7 Hours)

PROGRAMME OUTCOME:

1. STUDENTS WILL LEARN ABOUT THE ALGORITHM AND FLOW CHART OF PROGRAMMING.
2. STUDENTS WILL BE AWARE ABOUT CONSTANTS, VARIABLES.
3. STUDENTS OPINION WILL LEARN ABOUT TE USE OF FUNCTIONS, ARRAY ETC.
4. STUDENTS AS WELL AS PATIENT'S AWARENESS ON COMPUTER WILL BE ENHANCED.

COURSE OUTCOME:

CO -1 : STUDENTS WILL LEARN ABOUT THE C PROGRAMMING AS A COMPUTER LANGUAGE.

CO -2 : THEY WILL KNOW ABOUT THE USE OF C LANGUAGE.

CO 3 : IT WILL BE POSSIBLE TO KNOW WHAT IS THE FUNCTION AND ARRAY IN C LANGUAGE.

CO 4 : STUDENTS WILL ABLE TO LEARN ABOUT THE CONTROL STATEMENT.

CO 5 : STUDENTS AND CITIZENS WILL LEARN ABOUT IMPORTANCE OF RADIO PHYSICS IN ONCOLOGY.

CO 6 : THEY WILL LEARN ABOUT THE OPENING AND CLOSING OF FILE.

MODE OF EVALUATION:

After the completion of course, written examination will be taken for 80 Marks and a viva will be conducted for 20 Marks. On the basis of marks

obtained for written examination and viva, the results will be prepared.
The gradation system for the declaration of results will be as follows:

Grading system

Level	Excellent	Very Good	Good	Above Average	Average	Below Average	Poor	Fail
Grade	A+	A	B+	B	C	D	E	F
Marks range	90-100	80-89	70-79	60-69	50-59	40-49	33-40	0-32