

Course: Major
Computer Science Practical-Advanced C and Python Programming

Semester: II	Credits: 2	Subject Code:BSMAJCS223122	Lectures: 60
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Course Outcomes:

At the end of this course, the learner will be able to:

- CO1 - Construct the code organization with complex data types, structures and preprocessor directives.
- CO2 -Recognize the advanced concepts of programming using the 'C' and files manipulation.
- CO3- Understand the basic constructs of python programming such as data types, control statements etc and data structures like Lists, functions, tuples, dictionaries and Sets
- CO4 - Use modules, packages and files in python programs

Unit 1: Advanced C Programming Techniques	30
<ul style="list-style-type: none"> ● Assignment 1: Arrays ● Assignment 2: Pointers ● Assignment 3: Strings and Command line argument ● Assignment 4: Structure and Union ● Assignment 5: File Handling, C preprocessor ● Assignment 6: Mini Project 	

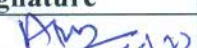
Unit 2: Python Programming	30
<ul style="list-style-type: none"> ● Assignment 1: Python Basics ● Assignment 2: Functions ● Assignment 3: List, Tuples, Dictionary ● Assignment 4: Strings ● Assignment 5: Module ● Assignment 6: File Processing 	

Recommended Text Books:

- B. Gottfried, 3rd edition, Schaum's outline Series, *Programming with C*, Tata McGraw Hill, 2018
- E. Balagurusamy, *Programming in ANSI C*, 7th Edition, McGraw Hill, 2012

Reference Books:

- Ajay Mittal, *Programming in C, A Practical Approach*, Pearson, 2010
- Behrouz A. Forouzan, Richard F, *A Structured Programming Approach Using C*, Gilberg, Cengage Learning India, 2007
- Charles Dierbach, *Introduction to Computer Science Using Python*. Wiley Publication
- E Balguruswamy *Introduction to Problem Solving with Python*. TMH publication; 2016.
- James Payne, *Beginning Python: Using Python and Python 3.1*. Wrox Publication.

Board of Studies	Department	Name	Signature
Chairperson (HoD)	BSc(Comp. Sci)	Ashwini Kulkarni	



Websites:

- <https://www.learn-c.org/>
- <https://www.cprogramming.com/>
- <https://python.org>

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