

Syllabus of Advance Programming Practices (SAPP) (2020) **(Lecture-1, Tutorial-0, Lab-3)**

Component	Unit	Topics
C1	Unit 1	Quick overview on C language Pointers and arrays Linked lists Dynamic tables
	Unit 2	Disjoint sets using trees Hashing by chaining Perfect hashing Heaps using trees Search algorithms for graphs (DFS & BFS)
C2	Unit 3	Balanced trees B-tree Kruskal's algorithm Eulerian path Hamiltonian cycle
	Unit 4	Shell scripts in Linux environment Programming in bash whiptail Automatic testing using shell scripts

Books and references

1. Pro Bash Programming by *Chris F.A. Johnson*, Apress
2. C Programming Language (Ed 2) by *Brian W. Kernighan* and *Dennis M. Ritchie*, Prentice Hall
3. Data Structures Using C and C++ by *Yedidyah Langsam*, *Moshe J. Augenstein* and *Aaron M. Tenenbaum*, Pearson
4. Introduction to Algorithms (Ed 3) by *TH Cormen*, *CE Leiserson*, *RL Rivest* and *C Stein*, MIT Press