



Data Structure

Semester III Course





Course Outcomes

Course Outcome	After successful completion of the course students should be able to					
CO1	Explain the different data structures used in problem solving					
CO2	Apply linear and non-linear data structure in application development.					
CO3	Describe concepts of advance data structures like set, map & dictionary					
CO4	Demonstrate sorting and searching methods.					







Recommended Books:

Sr.	Name/s of Author/s	Title of Book	Name of	Edition and
No.			Publisher with	Year of
			country	Publication
1.	Ellis Horowitz, Sartaj	Fundamentals Of Data	University	Second
	Sahni, Susan	Structures In C	Press	Edition
	Anderson-Freed			
2.	Richard F. Gilberg &	Data Structures A	CENGAGE	Second
	Behrouz A. Forouzan	Pseudocode Approach	Learning	edition
		with C		
3.	Jean Paul Tremblay,	An introduction to data	Tata McGraw-	Second
	Paul G. Sorenson	structures with	Hill Education	Edition
		applications		
4.	Aaron M Tanenbaum	Data structure Using C	Pearson	Twelfth
	Yedidyah Langsam			Impression
	Moshe J Augentstein			2013
5.	Michael T Goodrich	Data Structure and	Wiley	First
	Roberto Tamassia	Algorithm in C++		
	David Mount			





Modes of Content Delivery

- Blackboard Teaching
- Visual Aids
- Seminar
- NPTEL Video Lectures
- Quiz
- Guest Lecture
- Test



Practical Assessment Rubric



Critorio	Excellent (AA)	Good (AB)	Average (BB)	Poor(BC)	
Cinterna	5/10	4/8	3/6	2/4	
Timely Execution (05)	The activity was shown on same day as suggested by Laboratory Faculty.	The activity was shown after one week of the lab.	The activity was shown after 2 weeks of the lab	The activity was shown after more than 2 weeks of the lab.	
Timely Writeup Submission (10)	The Writeup was submitted in the next lab session. Post lab questions answered perfectly No Plagiarism.	The Writeup was submitted after two turns of the lab session. Post lab questions fairly answered No Plagiarism.	The Writeup was submitted after three turns of the lab session. Post lab questions poorly answered No Plagiarism.	The Writeup was submitted after a month lab session. Post lab questions are not answered No Plagiarism.	
Individual Performance (10)	All the features / functionalities implemented / demonstrated.	All the features / functionalities implemented / demonstrated but not in detail	Partial coverage of the features / functionalities implemented / demonstrated.	Implementation not up to the mark / negligible performance.	





Evaluation Scheme

- Number of credits 04 (TH 03 , PR 01)
- Term Test/ISE 30 marks
- Internal Assessment 20 marks
- End Sem. Exam 100 converted to 50 marks





Evaluation Scheme

- Term work 25 marks
- Prac & Oral 25 marks

Course Code	Course Title							
116U01C302	Data Structure ^{\$}							
	TH		Р		TUT		Total	
Teaching Scheme(Hrs.)	()3		02	2			05
Credits Assigned	03		01				04	
	Marks							
Examination	CA	CA			0	р	B &O	Total
Scheme	ISE	IA	ESE	IW	0	r	140	10(81
	30	20	50	25			25	150

\$ Common with IT Branch





Test Syllabus(Expected)

- Test/ISE
 - Introduction to Data Structures(Module 1)
 - Linear data structure(Module 2)

- ESE
 - Entire Syllabus





Internal Assessment

Internal Assessment (IA) – 20 Marks

	The student will be evaluated based on two tasks of 20 marks each which will be averaged later for all IA							
Distribution	n tasks. If any of the tasks given is not completed / submitted then the marks assigned for that task will be							
of 20 Marks	zero.							
Sr. No.	Task	Description of task	Schedule	Weightage				
1	One Quiz	Module 1,2,3	After Test	50%				
	<u>(No re-exam will</u>							
	<u>be conducted.)</u>							
2	Peer grading	This can be done in a group of 2-3 students.	Mid	50%				
	Programming	1. Small applications will be assigned to each group.	November					
	assignment using	2. The presentation <u>screencast</u> video should- explain the						
	a data structure	problem statement, logic, code and output.						
	to develop	3. The video duration will be max 10mins						
	solution for a	4. All students must participate in presentation						
	small application	5. Students would choose a problem statement and suggest						
		one of the data structure for developing the solution, and						
		how the solution will be implemented. Upon teacher's						
		approval, students would work on the chosen problem and						
		submit their work.						
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Lets Begin..