



2.6.1

Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website and attainment of POs and COs are evaluated

**Process CO-PO Attainment
Formats**

Greater Noida Institute of Technology (Engg. Institute)

**Plot No. 7, Knowledge Park II, Greater Noida
Uttar Pradesh 201310 India**

Session: 2022-23 Semester: VII-A

Subject: Cloud Computing

Subject Code: KCS-713

Mapping of COs with PO's/PSO's

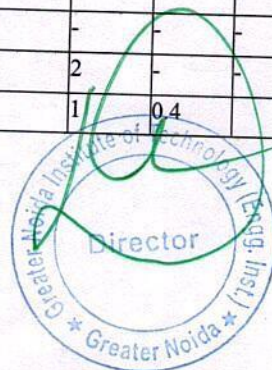
Course Objectives:

COURSE OUTCOMES:

Course Outcome (CO)		Bloom's Knowledge Level (KL)
At the end of course, the student will be able to:		
CO 1	Describe architecture and underlying principles of cloud computing.	K3
CO 2	Explain need, types and tools of Virtualization for cloud.	K3,K4
CO 3	Describe Services Oriented Architecture and various types of cloud services.	K2,K3
CO 4	Explain Intercloud resources management cloud storage services and their providers Assess security services and standards for cloud computing.	K2,K4
CO 5	Analyze advanced cloud technologies.	K3,K6

Mapping of COs with POs/PSOs

PO/PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CO1	-	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-
CO2	-	2	-	-	-	-	-	-	-	-	-	-	2	-	-	-
CO3	-	1	2	-	-	-	-	-	-	-	-	-	-	2	-	-
CO4	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
CO5	-	2	-	2	2	-	-	-	-	-	-	-	2	-	-	-
Avg		1.8	0.6	0.4	0.4								1	0.4		

JUSTIFICATIONS FOR COs-POs/PSOs MAPPING

MAPPING	LOW/MEDIUM/HIGH	JUSTIFICATION
CO1-PO1	2	Graduate attains a knowledge of architecture and underlying principles of cloud computing
CO1-PSO1	1	Graduate will be able to understand the different design architecture based upon the user requirements.
CO2-PO2	2	Graduate will be able identify and review the need, types and tools of Virtualization for cloud.
CO2-PSO1	2	Graduate is able to apply the knowledge cloud virtualization environment.
CO3-PO2	1	Graduate attains the knowledge of architecture and services of cloud.
CO3-PO3	2	Graduate is able to apply cloud architecture knowledge in real-time implementation.
CO3-PSO2	2	Graduate will be able to create reliable and efficient cloud services.
CO4-PO2	2	Graduates will get the knowledge of different service providers and standards of cloud computing
CO4-PO3	1	Graduate will be able to review the different services offered by different providers.
CO5-PO2	2	Graduate will be able to analyze advanced cloud technologies like MapReduce, Google App Engine.
CO5-PO4	2	Graduate will be able to analyze and interpretation of data on advance cloud technologies on MapReduce, Google App Engine.
CO5-PO5	2	Graduate will be able apply advanced cloud technologies for prediction and modeling to complex engineering problems.
CO5-PSO1	2	Graduate is able to design solutions to complex problems using different cloud technologies.

1: Slight (low)
2: Moderate (Medium)
3: Substantial (High)





ग्रेटर नोएडा इंस्टीट्यूट ऑफ टेक्नोलॉजी (इंजीनियरिंग इंस्टीट्यूट)
GREATER NOIDA INSTITUTE OF TECHNOLOGY (Engg. Institute)

Format: Attainment of Course Outcome (Theory Subjects) : B. Tech. -II Year(CSE) : 2022-23

Course Name & Code : Data Structure (KCS101)

Faculty Name: Dr. Vijay Shukla

Attainment Levels (Internal Assessment)

Level 1- Upto 50% students will secure $\geq 70\%$ marks in CO

Level 2- 50-60% students will secure $\geq 70\%$ marks in CO

Level 3- 60% or more students will secure $\geq 70\%$ marks in CO

Attainment Levels (Course End Survey)

Level 1- Upto 50% students will be agreed.

Level 2- 50-60% students will be agreed.

Level 3- 60% or more students will be agreed.

Attainment Levels (End Sem Result)

Level 1- Upto 50% students will secure / obtain 50% or more marks.

Level 2- 50-60% students will secure / obtain 50% or more marks.

Level 3- 60% or more students will secure / obtain 50% or more marks.

CO Assessment

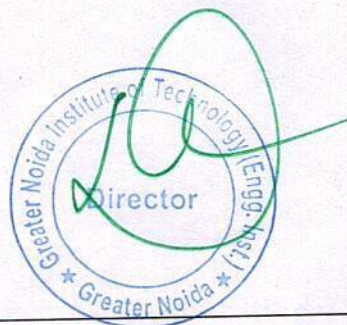
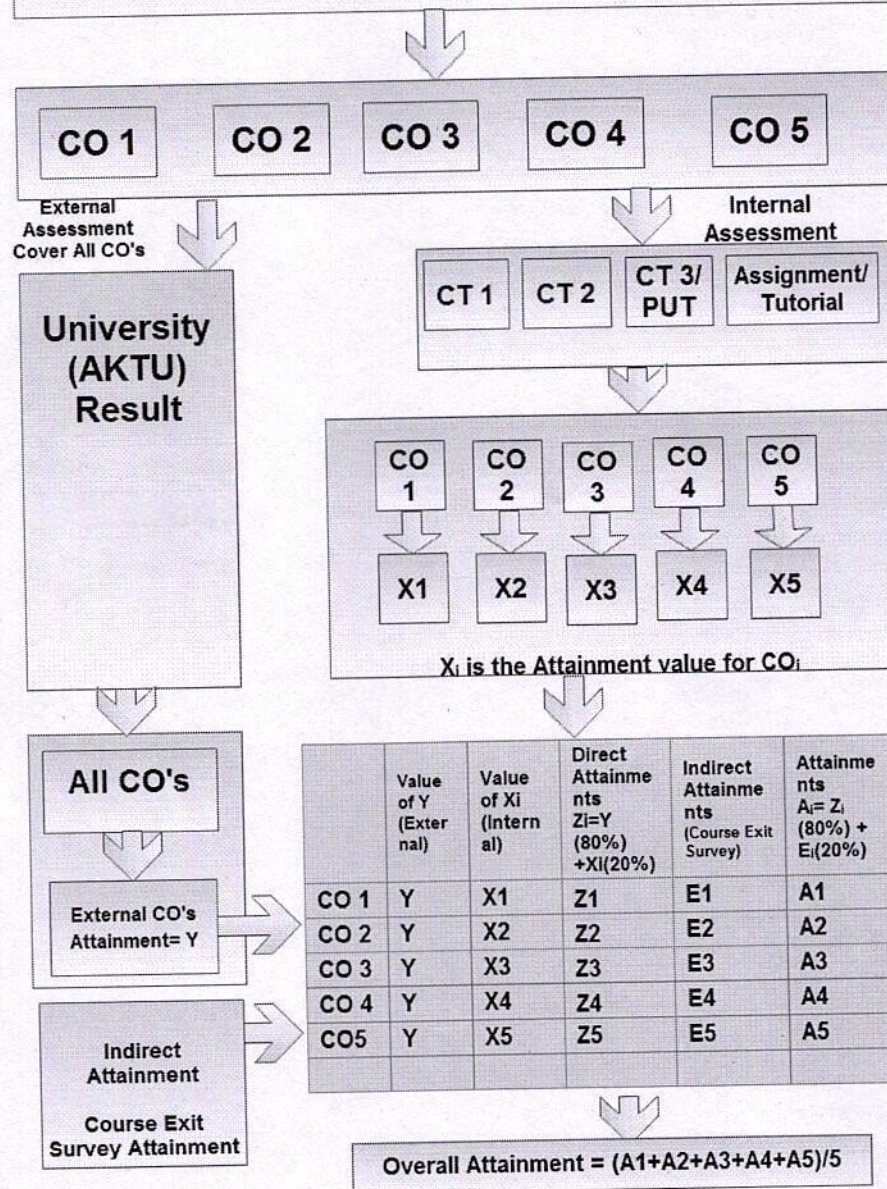


S. No.	COURSE OUTCOMES	Direct Assessment(80%)		Indirect Assessment(20%)	Overall Attainment
		Internal Assessment(20%)	External assessment (80%)		
1	CO1	1	3	3	2.68
2	CO2	1	3	3	2.68
3	CO3	3	3	3	3
4	CO4	3	3	3	3
5	CO5	3	3	3	3

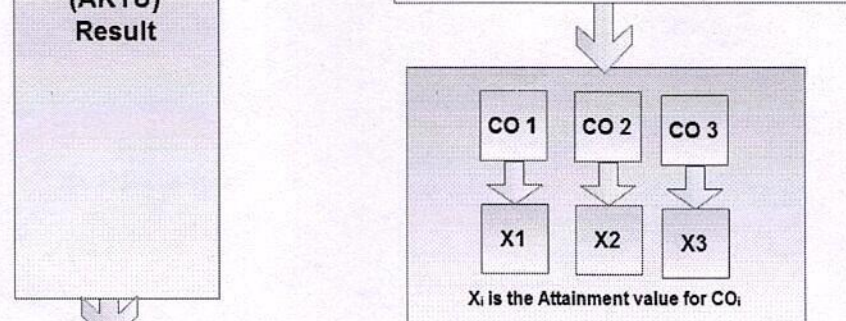
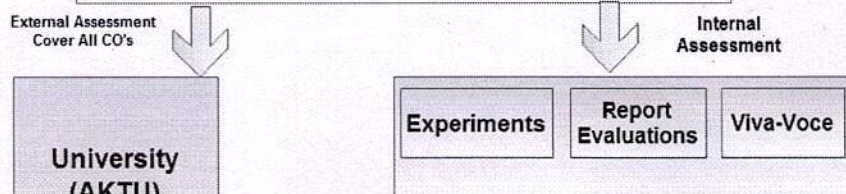
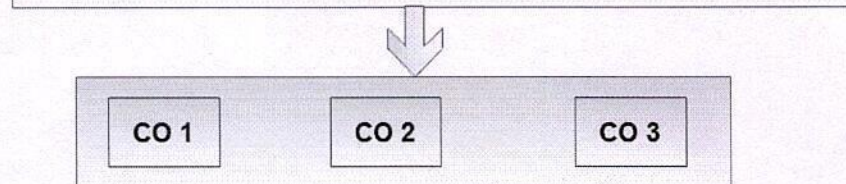
Average Attainment =

2.872

Direct Attainment Theory Course

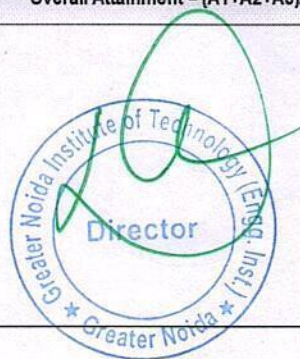


Direct Attainment Practical Course



	Value of Y (External)	Value of X_i (Internal)	Direct Attainments $Z_i = Y(80\%)$ $+ X_i(20\%)$	Indirect Attainments (Course Exit Survey)	Attainments $A_i = Z_i(80\%) +$ $E_i(20\%)$
CO 1	Y	X_1	Z_1	E_1	A_1
CO 2	Y	X_2	Z_2	E_2	A_2
CO 3	Y	X_3	Z_3	E_3	A_3

Overall Attainment = $(A_1 + A_2 + A_3) / 3$





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GREATER NOIDA INSTITUTE OF TECHNOLOGY (Engg. Institute)

Session 2021-22 (EVEN/odd)

B.Tech. (CSE) – III Semester

Faculty Name : Dr. Vijay Shukla

Subject Name and Code: Data Structure (KCS101)

Format for CO Attainment Sheet for Internal Assessment

			CT-I	CT-II	PUT	Assig n/		CT-I	CT-II	PUT	Assig n/		CT-II	PUT	Assig n/		CT-II	PUT	Assig n/		PUT	Assig n/	
S. N	Name	Roll No	CO1	CO1		CO1	%	CO2	CO2		CO2	%	CO3		CO3	%	CO4		CO4	%	CO5	CO5	%
			MM	MM		MM		MM	MM		MM		MM		MM		MM		MM		MM	MM	
			20	12		5		20	12		5		12		5		12		5		12	5	
1																							
2																							
3																							
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16																							
17																							
18																							
19																							
20																							
No of students securing							0					0				0				0			0
Percentage of students																							
CO attainment Level																							



Final Marks Awarded in the Internal Assessment and Marks obtained in the External Examination

S.NO	NAME	ROLL NO.	Course Code:		Percentage
			INTERNAL (50)	EXTERNAL (100)	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13	-		-		-
14					
15					
16					
17					
18					
19					
20					

No of students securing more than 50% marks	
Percentage of students securing more than 50% marks	
CO attainment Level	



Assesment of Course Exit Survey

S. No.	Name	Roll No	Students response on 1-5 scale (5- excellent, 1-poor)				
			CO1	CO2	CO3	CO4	CO5
1			5	5	5	5	5
2			5	5	5	5	5
3			5	5	5	5	5
4			5	5	5	5	5
5			5	5	5	5	5
6			5	5	5	5	4
7			5	5	5	5	5
8			5	5	5	4	5
9			5	5	5	4	5
10			5	5	5	5	5
11			5	5	5	5	5
12			5	5	5	5	5
13			5	5	5	4	5
14			5	5	5	5	5
15			5	5	5	4	5
16			5	5	5	4	5
17			5	5	5	5	5
18			5	5	5	5	5
19			5	5	5	5	5
20			5	5	5	5	5

Poor	-	-	-	-	-
Average	-	-	-	-	-
good	-	-	-	-	-
very good	-	-	-	5.0	1.0
Excellent	20.0	20.0	20.0	15.0	19.0
	90.9	95.2	95.2	95.2	95.2
CO attainment Level	3	3	3	3	3



Course Exit Survey

Subject:	
Sub Code:	
Name of Student:	
Roll No:	
Year:	
Semester:	
Branch:	

This survey is for you to rate yourself on the scale of [1-3] that being a student of this subject you are able to achieve following outcomes:

Course Outcome	Statement	Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
CO1	Describe how arrays, linked lists, stacks, queues, trees, and graphs are represented in memory, used by the algorithms and their common applications.					
CO2	Discuss the computational efficiency of the sorting and searching algorithms.					
CO3	Implementation of Trees and Graphs and perform various operations on these data structure.					
CO4	Understanding the concept of recursion, application of recursion and its implementation and removal of recursion.					
CO5	Identify the alternative implementations of data structures with respect to its performance to solve a real world problem.					

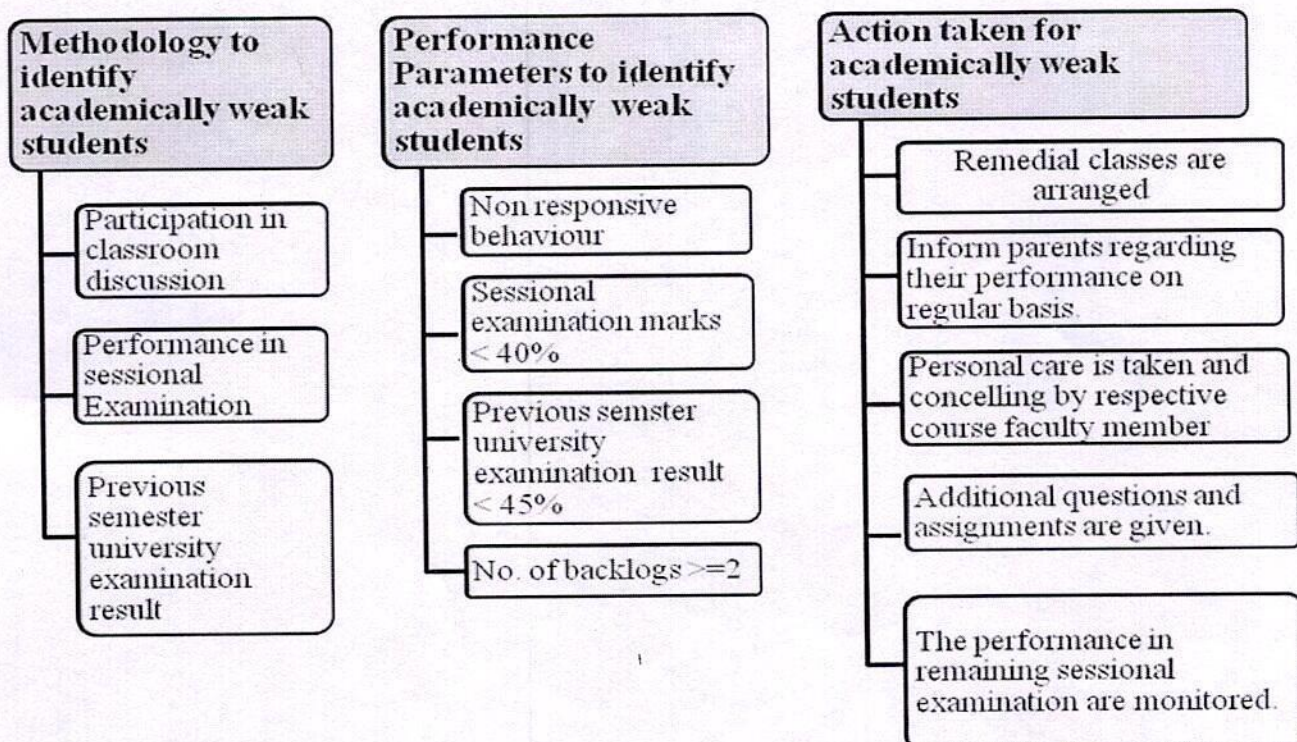
KCS351: DATA STRUCTURE LAB

Course Outcome	Statement	Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
CO1	Understand and choose appropriate data structure like arrays stack, queue linked list as applied to specified problem definition.					
CO2	Implement operation like searching, insertion, deletion, traversing mechanism etc on various data structures.					
CO3	Design and analyze the time and space efficiency of the data structures.					

Signature of Student

Assessment and Preparation Methods for Slow & Advance Learners

1.1 Criteria for identification of Slow Learners:



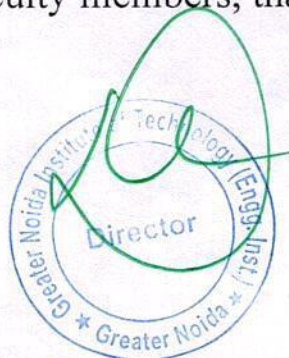

 Director
 Greater Noida Institute of Technology
 Greater Noida

1.2 Policy Guidelines for Slow learners

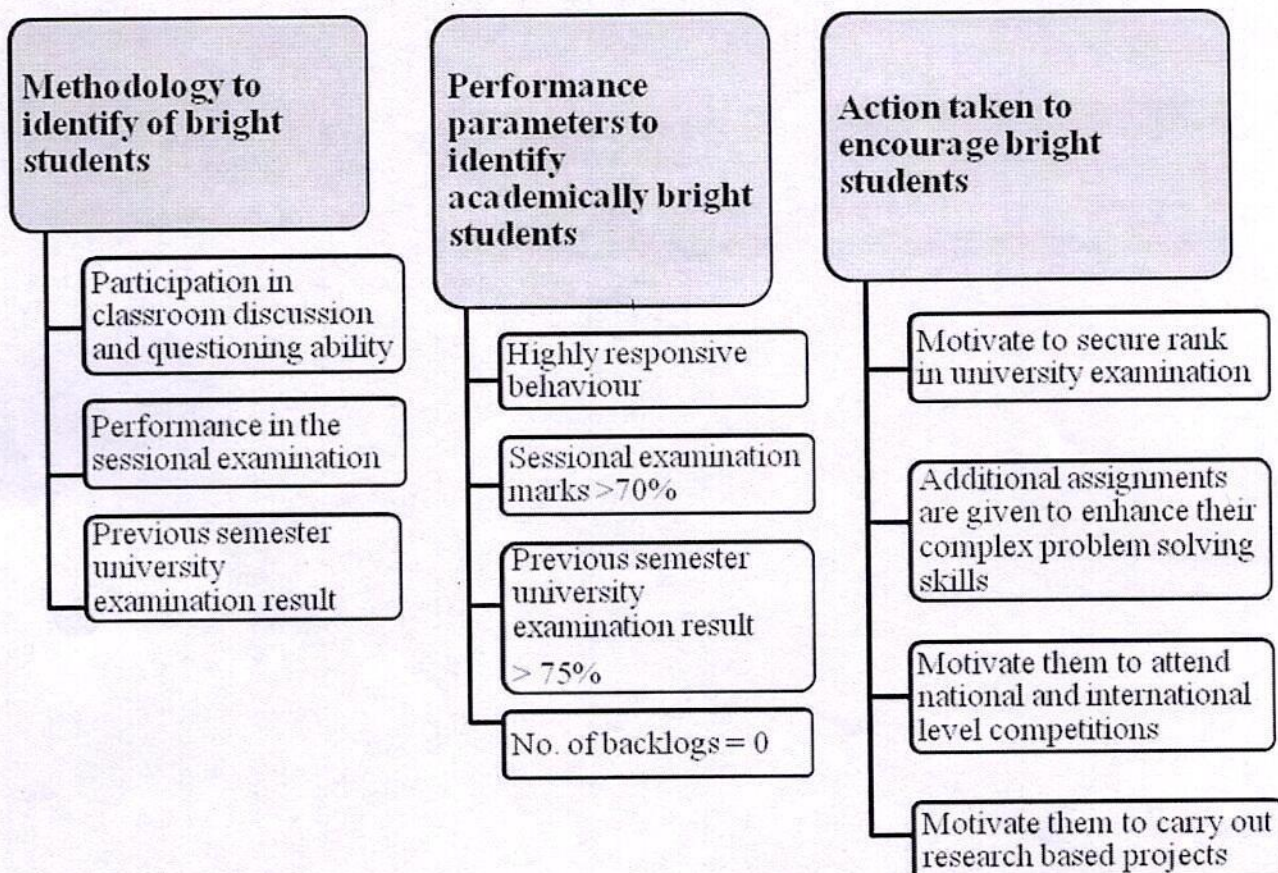
- Each Department should have provision of 2-3 hours every week for remedial classes in each course.
- Conduct extra classes for the difficult subjects (based on the previous university results) in the curriculum.
- Special attention is given to the students in the classes, who are identified as the slow learners.
- Slow learners are specially advised and counselled by a mentor and the subject teacher.
- Corrective discussion is conducted for the weaker students based on the results of class tests.
- Bilingual explanation and discussions are imparted to the slow learners after the class hours for better understanding.
- Provision of simple and standard lecture notes/course materials and special preparation for the exams will be good.
- Getting the support of the advanced learners to the slow learners in making their learning process more participatory and interesting.
- Encouraging the group learning activities and practical will be useful to the slow learners.

Note:

Document proofs should be maintained by the faculty members, that will be added into the subject course file.



2.1 Criteria for identification of Advance Learners



2.2 Policy Guidelines for Advanced learners

- Advanced learners are motivated to strive for higher goals. They are provided with additional inputs for better career planning and growth through offering special coaching for higher level competitive examinations
- Motivating them to involve in research projects to inculcate research orientation and higher studies aspirations
- Encouraging them to participate in National International Conferences and also to make presentations
- Stirring the advanced learners to make quality publications and creative contributions to the academic as well as to the practical world.
- They are made the supporters to the average and the slow learners.

Note:

Documents proofs should be maintained by the faculty members, which should be added into the Subject course file.

