

### Lesson Plan (Data Analytics using R Lab)

**Name of Faculty** : Ms Anju Godara Assistant Professor of CSE  
**Discipline** : CSE (6<sup>th</sup> Semester)  
**Lesson Plan Duration** : 15 weeks (February 2025 to July 2025) Work Load  
**(Lecture/Practical) per week (in hours):** lecture: 03 hours/Practical-02 hours

Week	Theory/ Practical (Group-I/ II)		Topic Covered Date and Remarks		
	Practical Day	Topics/ Programs	Date	HOD	Director-Principal
1st	1	Installation R studio and explore its GUI .			
2nd	2	How to install R packages and also few basic commands to Get started. Like Install package, packge description,help ,find package etc.			
3rd	3	Explore base R package datasets .Write a description of following dataset: Hair eye color ,Iris, Airquality, mtcars.			
4th	4	*Program to create vector of a specified type and length. Create vector of numeric, complex, logical and character types of length 6. * R program to add two vectors of integers type and length 3. * R program to find Sum, Mean and Product of a Vector.			
	5	* Write a R program to find the levels of factor of a given vector. * R program to create a factor corresponding to height of women data set, which contains height and weights for a sample of women * R program to concatenate two given factor in a single factor.			
5th	5	R program to create a list containing strings, numbers, vectors and a logical values. R program to list containing a vector, a matrix and a list and give names to the elements in the list. R program to create a matrix taking a given vector of numbers as input. Display the matrix. R program to create two 2x3 matrix and add, subtract, multiply and divide the matrixes.			
		R program to call the (built-in) dataset airquality. Check whether it is a data frame or not? Order the entire data frame by the first and second column. R program to create an empty data frame.			
6th	6	Illustrate the use of control , looping statement and user define functions.			
7th	7	R program to get the first 10 Fibonacci numbers. R program to take input from the user (name and age) and display the values. Also print the version of R installation.			
		Minor test 1 <sup>st</sup>			
8th	8	Define different charts and writing the finding on basis of these charts.			
9th	9	Work on hypothesis testing for descriptive and inferential statistics.			
10th	10	Predictive modeling using R packages .			