



### Lesson Plan & Work-done Diary for AY:2024-25, ODD Semester

Course with Code: Mathematics for computer Science BCS301				Faculty: Dr. Madhusudhan K V			Semester & Section: III CG	
Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
<b>MODULE-1-PROBABILITY DISTRIBUTION</b>								
1		Review of basic probability theory. Random variables (discrete and continuous), probability mass and density functions	Chalk and Talk					
2		Problems	Chalk and Talk					
3		Mathematical expectation, mean and variance. Binomial-distributions- derivations for mean and standard deviation	Chalk and Talk					
4		Binomial- distributions- problems	Chalk and Talk					
5		Poisson distributions - derivations for mean and standard deviation	Chalk and Talk					
6		Poisson distributions - problems	Chalk and Talk					
7		Normal distributions- problems	Chalk and Talk					
8		Normal distributions, Exponential distribution- problems	Chalk and Talk					
9		Exponential distribution- problems	Chalk and Talk					

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<b>MODULE-2- JOINT PROBABILITY DISTRIBUTION AND MARKOV CHAIN</b>								
10		Joint Probability and Joint Probability Distribution	Chalk and Talk					
11		Marginal Probability Distribution	Chalk and Talk					
12		Independent random variable	Chalk and Talk					
13		Expectation, Variance , Co-variance and correlation	Chalk and Talk					
14		Markov chain –introduction to Stochastic process	Chalk and Talk					
15		Probability vectors	Chalk and Talk					
16		Stochastic matrices , Regular Stochastic Matrices	Chalk and Talk					
17		Markov Chains	Chalk and Talk					
18		Higher transition Probabilities	Chalk and Talk					
19		Stationary distribution of Regular Markov Chains and absorbing states	Chalk and Talk					

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<b>MODULE-3- STATISTICAL INFERENCE 1</b>								
20		Introduction, sampling distribution, standard error	Chalk and Talk					
21		Testing of Hypothesis	Chalk and Talk					
22		Levels of Significance	Chalk and Talk					
23		Test of Significance- Problems	Chalk and Talk					
24		Confidence limits	Chalk and Talk					
25		Simple sampling of attributes	Chalk and Talk					
26		Test of significance for Large Samples	Chalk and Talk					
27		Comparison of Large Samples	Chalk and Talk					
28		Comparison of Large Samples- Problems	Chalk and Talk					

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<b>MODULE-4 STATISTICAL INFERENCE 2</b>								
29		Sampling variables	Chalk and Talk					
30		Central limit theorem, Confidence limit for Unknown mean	Chalk and Talk					
31		Sampling Theory	Chalk and Talk					
32		Test of Significance for means of two samples	Chalk and Talk					
33		Problems on Test of Significance for means of two samples	Chalk and Talk					
34		Signification of proportion, difference of means and degree of freedom	Chalk and Talk					
35		Student's 't' distribution	Chalk and Talk					
36		Student's 't' distribution and Chi square distribution	Chalk and Talk					
37		Chi square distribution	Chalk and Talk					
38		F DISTRIBUTION	Chalk and Talk					

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<b>MODULE-5 DESIGN OF EXPERIMENTS AND ANOVA</b>								
39		Principles of experimentation in design, Analysis of completely Randomized design, Randomized block design	Chalk and Talk					
40		Anova technique, Basic principles of Anova technique	Chalk and Talk					
41		One way ANOVA	Chalk and Talk					
42		One way ANOVA	Chalk and Talk					
43		Two way ANOVA	Chalk and Talk					
44		Two way ANOVA	Chalk and Talk					
45		Latin square Design	Chalk and Talk					
46		Latin square Design	Chalk and Talk					

	Activity	Planned	Actual	Remarks
1	Theory Classes	46		
2	Assignments/ Quizzes/ Self-study	5 quizzes		
3	Tutorials/ Extra classes	-	-	
4	Internal Assessments	3	3	
5	ICT based Teaching (% of usage in Curriculum)			
Planning			Execution	
Faculty Signature:			Faculty Signature:	
HoD Signature:			HoD Signature:	