KU3DSCBBA205: QUANTITATIVE TECHNIQUES FOR BUSINESS MANAGEMENT

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
III	DSC	200-299	KU3DSCBBA205	4	4

Learning Approach (Hours/Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical / Internship	Tutorial	CE	ESE	Total	
4	0	0	30	70	100	2

Course Description:
To equip students with the skills to apply quantitative techniques in managerial decision-making, while fostering analytical thinking and logical reasoning for more effective and informed decisions.

Course Pre-requisite: Nil

Course Outcomes:

CO No.	Expected Outcomes	Learning Domains
1	Develop critical thinking skills for selecting appropriate quantitative techniques and statistical methods, recognizing their limitations, and using them effectively for managerial decision-making.	U
2	Understand the assumptions, characteristics, and differences of Binomial and Poisson distributions, and apply them to model discrete business events for effective decision-making.	A
3	Understand the features and properties of the Normal distribution, recognize its importance in business and research, and apply it for forecasting, quality control, and performance analysis, while also being able to interpret standard normal curves for probability-based decisions.	A
4	Acquire the ability to conduct statistical inference, including hypothesis testing, identifying null and alternate hypotheses, determining	U

	significance levels, and interpreting test results correctly.	

- Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C).

Mapping of Course Outcomes to PSOs.

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO 1	√			√			
CO 2		√			√		
CO 3			√				√
CO 4			√			√	

COURSE CONTENTS

Contents for Classroom Transaction:

MODULE	UNIT	DESCRIPTION	HOURS
I	**Introduction to Quantitative Techniques**		10
	1	Meaning, Definition, Features, Scope and Importance of QT.	
	2	Classification and Application of Quantitative Techniques in business, Limitations	
II	**Theoretical Distribution- Discrete Distribution**		15
	3	Binomial distribution - Basic assumptions and characteristics –Advantages and Disadvantages - Problems in Binomial Distribution, Fitting of binomial distribution.	
	4	Poisson distribution - Characteristics - Advantages and Disadvantages- Problems in Poisson Distribution-Fitting of Poisson distribution	
	Theoretical Distribution- Continuous Distribution		15

III	5	Normal distribution – Features – Importance - Advantages and Disadvantages - Difference between Binomial, Poisson and Normal Distributions.	
	6	Standard normal curve- Problems in Normal Distribution- Fitting of Normal Distribution	

IV	**Statistical Inference**		15
	7	Testing of hypothesis – Procedure –Null & Alternate hypothesis - Level of significance – Critical region- Degrees of freedom- Errors in testing	
	8	Two-tailed & One-tailed tests – Parametric Tests – Non-Parametric Tests - Difference between Parametric and Non-Parametric Tests (only theory)	

5	**Teacher Specific Module (Practicum)**		20
		Directions:The module is designed to provide students with a comprehensive understanding of both the theoretical foundations and practical applications of quantitative techniques, empowering them to perform statistical analysis and make informed decisions in real-world business scenarios.	

Essential Readings:

1. Vohra, N. D. Quantitative Techniques in Management. McGraw-Hill Education, 2014.
2. Sharma, J.K. Business Statistics. Pearson Education, 2019.
3. Gupta, S.P., &M.P. Gupta. Quantitative Methods for Management. Sultan Chand & Sons, 2018.
4. Anderson, David R., Dennis J. Sweeney, and Thomas A. Williams. Statistics for Business and Economics. 12th ed., Cengage Learning, 2016.
5. Levine, David M., Kathryn A. Szabat, and David F. Stephan. Statistics for Managers Using Excel. 8th ed., Pearson Education, 2018.

Assessment Rubrics:

Evaluation Type		Marks
End Semester Evaluation		**70**
Continuous Evaluation		**30**
a)	Test Paper- 1	10
b)	Test Paper-2	10
c)	Assignment	5
d)	Seminar/Book/ Article Review/ Viva-Voce/Field Report	5
Total		**100**