

ADVANCED BUSINESS STATISTICS

Sem	Subject Code	Category	Lecture		Theory		Practical	Credits
I	21CPCO1D	Core IV	6 hrs per week	90	6 hrs per week	90	-	4

COURSE OBJECTIVE:

This course aims to impart the knowledge in the area of statistics which help students to apply the effective statistical tools for the purpose of conducting research and also helps them to read and evaluate journal articles.

COURSE OUTCOME:

On successful completion of the course, the student will be able

CO Number	CO Statement	Knowledge Level (K1-K4)
CO1	To impart extensive knowledge about sampling techniques.	K2
CO2	To apply correlation and regression analysis in business activities.	K3
CO3	To acquire comprehensive knowledge about probability distribution.	K2 & K3
CO4	To acquire comprehensive knowledge with regard to chi-square analysis, hypothesis testing and also test the goodness of fit from the observed data.	K3 & K4
CO5	To apply fisher distribution for analyzing the variance between the samples also test the equality of population variances.	K3 & K4

**Knowledge Level: K1- Remember; K2- Understand; K3- Apply; K4 Analyse*

MAPPING WITH PROGRAMME OUTCOMES

COS	PO1	PO2	PO3	PO4	PO5	PO6
CO1	S	S	M	M	S	M
CO2	M	S	S	M	M	M
CO3	S	M	M	S	S	S
CO4	S	S	M	S	M	S
CO5	M	M	S	S	M	S

S-Strong; M-Medium; L-Low

\UNIT- I Introduction to Business Statistics and Sampling**20 Hours**

Business Statistics - Meaning- characteristics – advantages and limitations - Sampling– meaning - methods of sampling-sampling errors-merits and limitations of sampling –testing the hypothesis-test of significance for attributes-test of significance for large samples-test of significance for small samples- students “t” distribution.

UNIT- II Correlation and Regression Analysis**20 Hours**

Correlation- partial correlation coefficient-multiple correlation- Karl Pearson correlation coefficient - Spearman Rank Correlation – Regression - Partial regression-multiple regression-regression equations.

UNIT- III Probability Distribution**15 Hours**

Probability distribution - theorem- addition- multiplication- applications of probability- binomial, Poisson and normal distribution- constants- Bayes theorem

UNIT- IV Chi-Square Analysis**20 Hours**

Chi-square distributions- characteristics and uses – applications- Test of goodness of fit-Test of independence- Test of homogeneity-Yates Correction.

UNIT- V Fisher Distribution**15 Hours**

Fisher distribution - Testing equality of population variances - Analysis of Variance –one - way and two - way classification.

DISTRIBUTION OF MARKS: THEORY 20% AND PROBLEMS 80%**TEACHING METHODOLOGY**

The course is covered by adopting a combination of lecture methods, class presentation by groups of students, Assignments, self study sessions and PPT Presentations. Each student is required to do the back ground reading from the specified chapters of the prescribed book before coming to class.

TEXT BOOKS:

S.No	Authors	Title	Publishers	Year of Publications
1.	S.P Gupta	Statistical Methods	Sultan Chand & sons	2017
2.	RSN Pillai&Bagavathi	Statistics – Theory & Practice	Sultan Chand & sons	2010
3.	D C Sancheti and V K Kapoor	Business statistics,	Sultan Chand and sons, New Delhi	2015
4.	Dr D Joseph Anbarasu	Business statistics and operations research	Lintech press Trichy	2017

REFERENCE BOOKS:

S.No	Authors	Title	Publishers	Year of Publications
1.	PA. Navanitham	Business Statistics and Operations Research	Jai Publishers	2010
2.	J.K.sharma	Business Statistics	Pearson education India	2015
3.	P.R Vital	Business Statistics and Operation Research	Margham publications	2016
4.	Richard I Levin and David S. Rubit	Statistics for management	7 th Edition,Pearson education,	2015

SYLLABUS DESIGNER:

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