



The Islamia University of Bahawalpur Pakistan

Rahim yar khan campus

Department of Statistics

Instructor	Sidra Arif	E-Mail: sidraarif05@gmail.com		
Course Title	Application of Design & Analysis of Experiments-II		Program	M.Sc
Course Number	STAT-21208	Credit Hours		1
Lecture Timings	Wednesday : 11:30 – 1:30			
Teaching Methodology: 1. The class will be conducted in a lecture, discussion environment where the class instructor will lead discussions and students will be encouraged to participate and ask question at the end of each class session. Three days will be for theory and Three days will be for application. 2. <u>Students are expected to read the topic of the day in advance which will be told a day before by the instructor.</u>				

Week	Topics
1-2	Factorial experiment, 2k, 3k, & mixed level factorial experiments. By using yates method, algebraic method, finding LSD, standard Error, making anova by using CRD, LSD, RCBD.Example using sample data.
3-4	Factorial experiment, 2k, 3k, & mixed level factorial experiments. By using yates method, algebraic method, finding LSD, standard Error, making anova by using CRD, LSD, RCBD.Example using sample data. Interpret the results finding.
5-6	Factorial experiment, 2k, 3k, & mixed level factorial experiments. By using sign method & even odd method. Example using sample data.
7-8	Confounding, confounding in factorial replications, complete confounding, partial confounding, estimate it by using sign table, add vs even and yates method. Example using sample data. Interpret the result finding.
9-10	Adjusted d, partially confounding test is effective or not. Interpret the results finding.
11-12	Factorial experiment, fractional replication in factorial experiment. Defining contrast, aliases, positive

	and negative alises, making of anova table. Example using sample data. Interpret the results finding.
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Please Note: Each session consists of the number of lectures delivered in a weak. Any random absence by the instructor, the material to be covered during that class will be shifted to the next class meeting. In case of any necessary planned absence, information on schedule changes will be provided in advance.

Mark distribution:

Activity	Marks
Note book	5%
Presentation	5%
mid-term exam	15%
final term exam	25%
Total	50%

Appointment with Instructor:

1. Instructor will be available for meeting class students immediately before & after each class for 15 minutes. However this time after the class may be extended if necessary.
2. Any other problem pertaining with the study, any student may contact on contact number

Students responsibilities:

1. Students must attend class. At least 80 % attendance is mandatory.
2. Students must arrive on time and remain in class for the entire period.
3. Cellular phone must be turned off.
4. Test questions may be taken from text book reading, additional material discussed in the class and /or other assigned reading.

Recommended Books:

1. Boniface, D.R. (1995). Experimental Design & Statistical Methods, Chapman & Hall.
2. Clarke, G.M. (1994). "Statistics & Experimental Design". Edward Arnold.
3. Clarke, G.M., and Kempton, R.E. (1997), "Introduction to the Design & Analysis of Experiments", Edward Arnold.
4. Das, M.N.and Giri, N.C, (1986). "Design and Analysis of Experiments", John Wiley, New York.
5. Gomez, K.A., and Gomez, A.A. (1984). "Statistical Procedures for Agricultural Research", 2nd Edition, John Wiley, New York.
6. Giesbrecht, F. G., Gompertz, M. L. (2004) Planning, Construction, and Statistical Analysis of Comparative Experiments. Wiley.
7. Harold, R. L (1992). "Analysis of Variance in Experimental Design". Springer Verlag: