



The Islamia University of Bahawalpur Pakistan

Rahim yar khan campus

Department of Statistics

Class	MSC Statistics	Semester	3 rd	Session	2019-2021
Instructor	Sidra Arif	E-Mail:	sidraarif05@gmail.com	Program	MSC
Course title	Practical application of regression analysis-1	Course Number	STAT-21305	Credit hours	1
Lecture timings	Friday (11:20 to 01:20)				

Description: this course is designed to develop practical skill in the students at the master's. the course includes basic practicals of regression analysis in daily life as well as different fields.

Course objective: the objective of the course is to familiarize the student with a through understandings of the art of regression analysis . after the end of this course , the students will be able to solve problems practically in real life.

Tentative study plan for the semester

1-2	Regression line Y on X and X on Y. Regression line using normal equations
3-4	Least square estimate of the parameter in multiple regression model. S.E < significance of the regression coefficients.
5-6	$Y = aX^b$. Quadratic model, coefficient of correlation.
7-8	Multiple regression model, R^2, \bar{R}^2 . Sample correlation coefficient.

9-10	Testing of hypothesis concerning $B=0$. Testing of hypothesis about $H_0: \alpha = 0$
11-12	Testing of hypothesis about population Regression coefficient β_1 and β_2
13-14	Testing of regression slope under F-distribution.
15-16	Testing of hypothesis about B, with the help of ANOVA
	Jarque Bera Test for normality.

Learning Activities:

Learning activities may include in-class presentations, homework assignments from the textbook, small group or class discussion, and individual or group projects or exercises.

Mark distribution :

Activity	Marks
Note book	5%
Surprise test/ activity	5%
mid-term exam	15%
final term exam	25%
Total	50%

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.