

King Saud University (RIYADH)
College of business administration
Department of Quantitative Analysis.
MSc in Decision Sciences (MSDS)

Course Title: Statistical Models for Business Applications

(تطبيقات النماذج الإحصائية في الأعمال)

Code: DSC 514

Batch: Semester 1 (1437/1438h) Credit hours : 3 Number of Weeks: 15

Section: 45643

Course Facilitator: Dr .Manahil Kamal Altib

Office : Building 3 2nd Floor, Office No. 118 E-mail: Maltib@ksu.edu.sa

Lecture: Monday 9.00 AM to 12.00 AM (Hall A47)

**Office Hours: Sunday (9-10), Monday (8-9) and
Tuesday & Thursday (9-10)/ (12-1),**

Course Objectives

This course concerning to study the relationship between the statistical variables, and simple linear regression by least squares way, multiple linear regression, stepwise regression and multicollinearity problem, dummy variables, autocorrelation between residuals, homoscedasticity and normality of residuals, also non-linear regression, and logistic regression models, and statistical computer software such as SPSS will be used in the course for data analysis. (Prerequisite: QUA 501, DSC 527).

Content of the Course

Week	Content
1	Introduction (definition / Equation / Variables)
2	Simple Linear Regression
3	Ordinary Least Squares (OLS)
4-5	Multiple Linear Regression
5	Stepwise Method
6	Dummy Variables
7	First Midterm (20 points) : Wednesday (2/2/1438-2/11/2016) (9-10:30 AM)
7- 8	multicollinearity problem
9	Holiday
10	Autocorrelation
11-12	Homoscedasticity
13	Second Midterm (20 points) : Wednesday (15/3/1438- 14/12/2016) (9-10:30 AM)
13- 14	Non-Linear Regression
15	Logistic Regression
15	Quize or Seminar (10 points) : Wednesday (29/3/1438- 28/12/2016) (9-10AM)
	Project (10 points)
	Final Exam (40 points) Wednesday (13/4/1438- 11/1/2017) (8:00-11:00)

Basic reference

Gujarati, Damodar, N. (1995) / **Basic Econometric** / McGraw-Hill, Inc.

Other References:

Ashley, Richard A. (Richard Arthur) 2012, **Fundamentals of applied econometrics** / Wiley,

نماذج إحصائية خطية تطبيقية (الجزء الأول والثاني) ترجمة الأستاذ الدكتور أنيس
إسماعيل كنجو وآخرون ، النشر العلمي والمطابع جامعة الملك سعود 2000