جامعة الملك سعود
King Saud University
College of Business Administration
Quantitative Analysis Department

MSc in Decision Sciences (MSDS)

Course Title: Statistical Models for Business Applications **Code:** DSC 514
Batch: Semester 1 (1440/1441h) **Credit hours :** 3 **Number of Weeks :** 15
Section: 53329 **Course Instructor:** Dr .Manahil Kamal M. Eltayeb
Office: Building 3 2nd Floor, Office No. 118 **E-mail:** maltib@ksu.edu.sa
Website : https://fac.ksu.edu.sa/maltib
Lecture: Sunday (8.00 to 11.00) AM , (Hall G09)
Office Hours: Sunday (11-12) AM
Monday & Wednesday (12-1) PM , Tuesday (9-11)AM

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)
2-3	Simple Linear Regression / Ordinary Least Squares (OLS)
4-6	Multiple Linear Regression / Stepwise Method / Dummy Variables
	First Midterm (20 points) : Sunday (21/2/1440-- 20/10 /2019) (8- 9:30) AM)
7- 8	multicollinearity problem
9	Autocorrelation
10-11	Homoscedasticity
	Second Midterm (20 points) : Sunday (13/3/1440- 10/11/2019) (8-9:30 AM)
12- 13	Non-Linear Regression
14-15	Logistic Regression
	Quizzes + Seminar or Project (10 points) : **Sunday (27/3/1440- 24/11/2019) (8-11AM)**
	Final Exam (40 points)

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