1. *Instructor / Instructors Information*

Name of the instructor(s)	Office hours	Section	Building and office location	Contact number	E-mail
Dr. Lamya A. Baharith	12-2 S.M.W	SA	7/98C	63195	lbaharith@gmail.com lbaharith@kau.edu.sa
Hadeel S. Klakattawi	S.M.. 11-12 ….W 8-10	SA	7/3-111	26935	hsk1404@hotmail.com

2. *Course Information*

Course Name	Course code	Course Number
Statistical Lab2	**Stat**	**442**

Theoretical course meeting time	Theoretical course meeting places
.S.T. 11-1	3-27C/7

Course website address	Course prerequisite and needed skills to course success
http://www.kau.edu.sa/lbaharith/stat442.htm	Stat 302, 403, 404, CS 102

Teaching method	Using board and data show

3. *Course Objectives*

Description of the course	General objective from the course	Upon completing this course, participants will know how to: Use R facility. Construct and manipulating data structure. Generate and compute probability from different distribution. Create advance graphic. Write program code by using powerful programming environment of R. Use R for Simulation techniques

	Course Subjects and Philosophy , teaching methodology	Use of statistical program such as R and use it to perform descriptive statistics, different probability distributions, sampling techniques, generating random numbers, testing hypotheses, regression, ANOVA, chi-square testing. Also, train students to perform some basic simulation tasks.
	Relation ship between this course and other courses according to department plan	Stat 302, 403, 404, CS 102 is prerequisite and no post requisite for this course

4.*Learning Resources*

Course	**Textbook, and where to obtain it**	Using R for Introductory Statistics (Hardcover); John Verzani; Chapman & Hall/CRC; 1 edition **From Al-Shegry BookStore** **Book Site:** www.math.csi.cuny.edu/UsingR
References	**List of the references and where to obtain them**	1. Introductory Statistics with R (Paperback); Peter Dalgaard; Springer; 1st ed. 2002. Corr. 3d printing edition (January 9, 2004) From Amazon.com 2. Andreas Krause & Melvin Olson; Statistical and computing. 3. Notes on S-PLUS prepared by Dr. Abeer Al-khouli. 4. Richard A. Becker, John M. Chambers, and Allan R. Wilks. The New S Language. Chapman & Hall, London, 1988. 5. William N. Venables and Brian D. Ripley. Modern Applied Statistics with S. Fourth Edition. Springer, New York, 2002. ISBN 0-387-95457-0 6. William N. Venables and Brian D. Ripley.S Programming. Springer, New York, 2000. ISBN 0-387-98966-8.
	Websites	More references are found under Books in R web site http://www.rproject. org/

List of the software if needed	R package : download from R web site http://www.r-project.org/

5. *Course Requirements and Grading*

1. *Student assessment*

-Home works   7%
-Quizzes   3%
-Project   10%
- First exam   20%
-Second exam   20%
-Final exam   40%

2. *Expectation from student for each assignment and project.*

All students are expected to:

- Attend class regularly, asking questions when clarification is needed and participating in any in-class activities.
- For each credit hour, the student is expected to spend at least 3 working hours doing homework, reading, and studying for the course. Therefore, the student is expected to spend at least nine working hours weekly on this course preparing, studying, solving problems and doing lab assignments.

For Assignments:

There will be assignments, referred to in the below table as "**Assignments**". Your time and effort in solving homework problems will directly affect your performance in the exams. Attempt all of the assignments and turn them in at the start of the class in which they are due **(never accept any working after the appointed time)**.

3. *Attendance*

There is no grade for attendance. Yet according to University rules, if youmiss more that 25% of the classes, you could be denied from taking the final exam and get an DN grade. It is your responsibility to make up for any missed materials or assignments. You may come late or leave early without disturbing your classmates.

4. *Important Dates:*

-First Exam : 25/4/1430 H -

-Second Exam : 24/5/1430 H -

5-Detailed Course Schedule

Course Schedule template: (meeting two times a week)

The time distribution		Course topics	The notes regarding the students activities	
Week #	Date	Topic	Reading Assignment	What is Due?
1	4/3	Registration		
	6/3			
2	11/3	Introduction to R, Data modes, Type of data object, Names and assignment, Arithmetic Operators, Logical and Comparison Operators.	Chapter 1	Buy Book
	13/3			P14-15
3	18/3	Vector (Creating Vector, Vector Arithmetic, Vector Indexing)+ Some Arithmetic and Statistical R Function	Chapter 1	P15-16
	20/3			P21,22
4	25/3	Reading data Matrix(Creating Matrix, Matrix Arithmetic, Matrix Indexing)	Chapter 1	P29,30
	27/3		Chapter 3 +Notes	
5	2/4	Array(Creating Array, Array Arithmetic, Array Indexing).	Notes	
	4/4			
6	9/4	Data Frame (Creating Data Frame, Data Frame Arithmetic, Data Frame Indexing).	Chapter 4	P124-125
	11/4			
7	16/4	List Creating List, List Arithmetic, List Indexing	Chapter 4	P134-135
	18/4			Assignment 1
8	23/4	Statistical Distribution in R+ graphs	Chapter 5	P158-160 P163-164
	25/4			Exam 1
Mid Term Break (26/4 - 6/5)				
9	8/5	Loops + Conditional Execution, Writing Function.	Chapter 6	
	10/5			Assignment 2

Statistics department

The time distribution		Course topics		The notes regarding the students activities	
Week #	Date	Topic		Reading Assignment	What is Due?
10	15/5	Simulation technique		Chapter 6,2,3	P177-180
	17/5				
11	22/5	Statistical Inference for one and two samples. + Nonparametric Methods		Chapter 7, 8	P188-190 P194-196, 198 206, 211 P226,232,235 236, 246
	24/5				
12	29/5				
	2/6				Exam 2
13	7/6	Regression			P283,297,311
	9/6	ANOVA			P322,331 Assignment 3
14	Final Exam (TBA)				