

### 1. Instructor / Instructors Information

Name of the instructor(s)	Office hours	Section	Office location	E-mail
<b>Dr. Taghreed Abdel_Razek</b>	<b>.S, U., R 9-10.30 Wed. 9.30-11</b>	<b>AAR</b>	<b>51C</b>	<a href="mailto:Taghreed_1177@yahoo.com">Taghreed_1177@yahoo.com</a>

### 2. Course information

Course Name	Course code	Course Number
<b>Non- parametric Methods I</b>	<b>Stat</b>	<b>453</b>

Theoretical course meeting time	Theoretical course meeting places	Lab work meeting time	Lab work meeting place
<b>8-8.50 S., Tu., Th.</b>	<b>91C(7)</b>	<b>.S 9-10</b>	<b>L04B</b>

Course website address	Course prerequisite and needed skills to course success
	<b>Stat 302 and good skills in using SPSS package. No post- requisite for this course.</b>

Teaching method	Lecture, Discussion, Practical and Lab Training
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### 3. Course Objectives

1. *A statement of what the student will know and be able to do as the result of learning*
  - ❖ Understand different statistics used in nonparametric statistics.
  - ❖ Learn to estimate and interpret these statistics.
  - ❖ Develop analytic skills through the analysis of data sets taken from different fields.
  - ❖ Develop oral and written communication skills through the description of analytic strategies and the summarization and interpretation of results.
2. *A statement on how they will be expected to demonstrate their learning*
  - ❖ Understand issues in the design, analysis, and interpretation of studies involving nonparametric statistics.
  - ❖ Recognize when it is necessary to use nonparametric statistics.
  - ❖ Introduce a collection of nonparametric tests which applicable on data from general populations.
  - ❖ Be able to apply the nonparametric tests in their future searches.

#### 4. Learning Resources

Course	Textbook, and where to obtain it	Conover W.J. (1999), "Practical Nonparametric Statistics " John Wiley & Sons. Al Shigry library- Jeddah
References	List of the references and where to obtain them	1- Peter Sprent and Nigel C. Smeeton, Applied nonparametric statistical methods, Fourth edition, Chapman & Hall 2007 2- د. جلال م الصياد "الإستدلال الإحصائي" دار المريخ 2006 Stat., dep., library faculty of science KAU 3- Using Spss for Windows and Macintosh. Al Shigry library- Jeddah 4- في العلوم النفسية الإحصاء اللابارامتري مع استخدام برنامج والتربوية والاجتماعية د زكريا احمد الشرييني 2001 مكتبة الانجلو
	Websites	<a href="http://www.kau.edu.sa/girls/statistics">www.kau.edu.sa/girls/statistics</a>
List of the software if needed		SPSS Program

*Lab work manual/references and skills will be expected from students*

- ❖ Develop skills through the use of lab work.
- ❖ Develop skills through apply data sets taken from different fields.
- ❖ Be able to apply the nonparametric tests through the package Spss

#### 5. Course Requirements and Grading

##### 1. *Student assessment*

- ❖ 27 /4/1435 Exam 1 20marks
- ❖ 13/ 6 /1435 Exam 2 20marks
- ❖ T.B.A Final Exam 40 marks
- ❖ T.B.A Lab& H.W& quizzes 20marks

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

- ❖ All homework assignments should be submitted on time
- ❖ All homework assignments should be corrected and reviewed with the lecturer during heir office hours.
- ❖ All lab assignments should be submitted on time and a discussion for most difficult homework problems will be made during the lab work meting time.

##### 3. *Expectation from student: Attitudes, involvement, behaviors, skills, and ethics*

- ❖ All mobiles should be turned off during the class.
- ❖ All students shouldn't be late for the lecture.
- ❖ All students shouldn't be late for the lab training.

#### 4. Important rules of academic conduct

- ❖ Students have to read the appropriate textbook sections before and after each lecture, and attempt the relevant homework problems
- ❖ Students have to attend at least 75% of scheduled classes.

#### Detailed Course Schedule

##### 1. Course Schedule template:

Course topics		The notes regarding the students activities	
Week #	Topic	Reading Assignment	What is Due?
1	Review to probability theory and statistical inference.	Chapter 1,2	
	Cont. review to probability theory and statistical inference.		
	Cont. of the revision, ch. 2		
2	The binomial test and estimation of $p$ .	Chapter 3	
	Cont. the binomial test and estimation of $p$ .		
	The Quantile test and estimation of $x_p$ .		
3	Cont. the Quantile test and estimation of $x_p$ .	Chapter 3	Assignment 1
	The sign test for paired sample		
	Cont. the sign test for paired sample		
4	REVISION		
	Quiz (1)		
	Exam (1)		

Course topics		The notes regarding the students activities	
Week #	Topic	Reading Assignment	What is Due?
5	The $2 \times 2$ contingency table	Chapter (4)	
	Cont. the $2 \times 2$ contingency table		
	The chi-squared test for differences in probabilities, probabilities, $r \times c$		
6	Cont. the $r \times c$ contingency table	Chapter (4)	
	The chi-squared test for independence		
	Cont chi-squared test for independence		
7	The chi-squared goodness of fit test	Chapter (4)	Assignment 2
	Cont. the chi-squared goodness of fit test		
	The median test		
8	Cont. The median test	Chapter (5)	
	Quiz (2)		
	Mann-Whitney test.		
9	Cont. Mann-Whitney test.	Chapter (5)	
	Midterm week		
	Review		
10	Exam 2	Chapter (5)	
	Kruskal-Walls test.		
	Cont. Kruskal-Walls test		
11	Wilcoxon-signed ranks	Chapter (5)	Assignment 3
	Cont. the Wilcoxon-signed ranks test		
	Friedman test.		

Course topics		The notes regarding the students activities	
Week #	Topic	Reading Assignment	What is Due?
12	Cont. Friedman test.	Chapter (6)	
	Cont. The Kolmogorov goodness Of fit		
	Quiz (3)		
13	The Kolmogorov goodness of fit test.	Lecture notes	
	Introduction of order statistic		
	Special cases of order statistic		
14	Final revision		
	Final exam		

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Course topics		The notes regarding the students activities	
Week #	Topic	Reading Assignment	What is Due?
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