

**Department of Statistics & Operation Research
King Saud University**

First Semester 2021/2022

STAT 109 -Biostatistics

Instructor : Sana Abu Nasrah

Office : 2A03

E-mail :Sabunasrah@KSU.EDU.SA

Catalog Description

Week	Title
W1	Introduction to bio-statistics (1.1-1.4)
W2	Types of data and graphical representation (1.1-1.4)
W3	Descriptive statistics: measures of Central tendency- mean, median, mode (2.1 -2 .6 Excluding stem plot percentiles)
W4	Measures of dispersion-range, standard deviation, coefficient of variation (2.1 - 2.6 Excluding stem plot percentiles)
W5	Calculating measures from an ungrouped frequency table (2.1 - 2.6 Excluding stem plot percentiles)
W6	Basic probability, conditional probability, concept of independence, sensitivity, specificity (3.1 -3.6)
W7	Bayes theorem for predictive probabilities (3.1-3.6)
W8	Some discrete probability distributions: cumulative probability (4.1-4.4)
W9	Binomial and Poisson -their mean and variance (4.1 - 4.4 Excluding the use of binomial and Poisson tables)
<i>Partial Exam</i>	
<i>Chapters 1, 2 and 3</i>	
W10	Continuous probability distributions: Normal distribution (4.5 - 4.8)

Textbook: Foundations of Biostatistics by Islam, M. Ataharul, Al-Shiha, Abdullah.

W11	Standard normal distribution and t-distributions (4.5-4.8)
W12	Sampling with and without replacement, sampling distribution of one and two sample means and one and two proportions (5.1 - 5.7 Excluding sampling without replacement)
W13	Statistical inference: Point and interval estimation, Type of errors, Concept of P-value (6.2 - 6.6, 7.1 - 7.6 Excluding variances not equal page 181-182)

Electronic Assignment

Chapters 4 and 5

W14	Testing hypothesis about one and two samples means and proportions including paired data – different cases under normality. (6.2 -6.6, 7.1 - 7.6, Excluding variances not equal page 181-182)
------------	---

Final Exam

Chapters 6 and 7

EXAMES :

<u>Exam</u>	<u>Date</u>	<u>Time</u>	<u>Mark</u>	<u>Method</u>
First Midterm		1 hour and half	30	Writing exam in the faculty
Second Midterm		1 hour and half	30	Writing exam in the faculty
Final Exam		2 hours	40	Writing exam in the faculty

Attendance:

Students missing more than 25% of the total class hours won't be allowed to write the final exam.
