Department of Statistics & Operation Research-King Saud University

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**SYLLABUS STAT 106 – Biostatistics**

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| **Week** | **Title** |
| **W1** | Introduction to Statistics & Data Analysis |
| **W2** | Organizing and Displaying Data |
| **W3** | Basic Summary Statistics |
| **W4** | - Measures of Central Tendency: Mean, Median, Mode- Measures of Dispersion: Variance, Standard Deviation, Coefficient of Variation |
| **W5** | - Calculating Measures from an Ungrouped Frequency Table- Approximating Measures from Grouped Data |
| **W6** | Basic concepts of Probability |
| **W7** | Conditional Probability and the concept of independence |
| **W8** | Combinations, Probability Distributions |
| **First Term Exam**  |
| **W9** | Discrete Probability Distributions |
| **W10** | Mean , Variance, and Cumulative Distribution Function |
| **W11** | Binomial Distribution, Poisson Distribution |
| **W12** | Continuous Distribution, Normal Distribution |
| **Second Term Exam**  |
| **W13** |  Central Limit Theorem, Estimation for the mean  for large samples |
| **W14** | Estimation for the proportion  for large samples |
| **Final Exam**  |

**Lecture Notes:** STAT– 106 BIOSTATISTICS, by Dr. Abdullah Al-Shiha,

**Optional book:** Elementary Biostatistics with Applications from Saudi Arabia, Second Edition. N. A. E. Hasabelnaby

**Participation, Quizzes & Home works: 10%**

**Midterm I: 25% (up to the end of chapter 2)**

**Midterm II: 25% (Chapters 3 and 4)**

**Final Exam: 40% (Chapter 5)**