**قسم الإحصاء وبحوث العمليات –كلية العلوم**

**جامعة الملك سعود**

**الفصل الدراسي الاول 1437/1438**

**145-احص الإحصاء الحيويStat 145 : Biostatistic**

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| **Week** | **Title** |
| **W1( 17 /12/1438)** | **Introduction to Bio-Statistics, (1.1-1.4)** |
| **W2( 24/12/1438)** | **types of data and graphical representation, (1.1-1.4)** |
| **W3( 01/01/1438 )** | **Descriptive statistics: Measures of Central tendency- Mean ,**  **median, mode(2.1-2.6 (2.1-2.6 Excluding stem plot percentiles )** |
| **W4( 8/01/1438 )** | **Measures of dispersion-Range, Standard deviation, coefficient of Variation.(2.1-2.6 Excluding stem plot percentiles )** |
| **W5( 15/01/ 1438 )** | **Calculating Measures from an Ungrouped Frequency Table**  **- (2.1-2.6 Excluding stem plot percentiles )** |
| **W6( 22/01/1438 )** | **Basic probability. Conditional probability, concept of independence, sensitivity, specificity, (3.1-3.6)** |
| **W7( 29/01/1438 )** | **Bayes Theorem for predictive probabilities. (3.1-3.6)** |
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| **W8( 6/02/1438)** | **Some discrete probability distributions: cumulative probability (4.1-4.4)** |
| **W9( 13/02/1438)** | **Binomial, and Poisson -their mean and variance**  **(4.1-4.4Excluding the use of binomial and Poisson tables).** |
| **W10(20/02/1438)** | **Continuous probability distributions: Normal distribution ( 4.5-4.8)** |
| **W11(27/02/1438)** | **Standard normal distribution and t distributions ( 4.5-4.8)** |
| **W12(05/03/1438)** | **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(12/03/1438)** | **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)** |
| **W14(19/03/1438)** | **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)** |

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| **General reviewing** | **W15(26/03/1438)** |
| **General reviewing** | **W16(03/04/1438)** |
| **There are two lectures per week.** | **Course Delivery**: |
| **Test No. 1 : 30 Marks (1.5 hours)** | **Grading Policy** |
| **Test No. 2 : 30 Marks (1.5 hours)** |
| **Final Test :40 Marks** |
| **Biostatistics: Basic Concepts and Methodology for the Heath Sciences by Wayne W. Daniel. [9th ed.] Books available from university book store below SAMBA bank. The book costs 70 Riyals for students.** | **Text Book** |