**Syllabus 145 Stat**

Instructor: Sana Abunasrah Office: 3T67 – Building 5

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| **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). |
| **W10** | Continuous probability distributions: Normal distribution (4.5 - 4.8). |
| **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). |
| **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). |

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| **Course delivery** | **Lectures** |
| Grading Policy | Partial exam. 1: 30 Marks (1.5 hours) |
| Evaluation and home works. 30 Marks (12 hours) |
| Final exam :40 Marks (2 hours) |
| Text Book | Foundations of Biostatistics by Islam, M. Ataharul , Al-Shiha, Abdullah |