

Course Overview

Biostatistics

Course code :	GMT 702
Course title:	Biostatistics
Level/semester:	Seventh Semester
PRECEDING COURSES	General Statistics
Credit hours: 4	Theoretical: 3
	Practical: 1

Course Description:

This course is designed to provide students with a basic understanding of biostatistics. The course covers of descriptive statistics with concepts of dispersion, central tendency measurements . Graphical and tabular displays are also covered. Simple inferential statistics involving probability +sampling, confidence intervals and tests of significance are presented. Simple linear regression and correlations are also covered. Understanding concepts and rational for various methods are emphasized with use of computer statistical software (such as Excel, SPSS) for graphs and calculations.

Course Objectives:

By the end of this course, the students will be able to:

1. Understand the concepts and principles of biostatistics and define terms used.
2. Differentiate between quantitative and qualitative data, construct, and interpret frequency distribution tables and graphic displays.
3. Calculate the measures of central tendency for a set of data.
4. State the meaning and estimate the measures of variability for a given set of biologic measurements.
5. Understand and define the basic principles of probability and their relevance in a physical therapy environment.
6. Know the types of samples and sampling techniques.
7. Understand t-test and chi-square with relation to physical therapy.
8. Understand and describe different study designs.

9. Describe the past trends in world population growth in general and for KSA and the Gulf Cooperation Council (GCC) countries, in particular.
10. Known how to use SPSS program.
11. Explain the processes that determine population growth, namely fertility, mortality and migration.