Course Specifications

General Information

Course name	Biostatistics & Empidemiology (0606212)
Course number	MEDI2342
Faculty	
Department	
Course type	College Needs
Course level	2
Credit hours (theoretical)	3
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - 1. Understand the value and uses of epidemiological methods

2 - 2. Study diseases in the community & clinical setting

3 - 3. Encourage the application of epidemiological knowledge for control and prevention of disease

4 - 4. Encourage good clinical practice by introducing the concepts of clinical epidemiology.

5 - 5. Understand the medical and biostatistics, and interpretation of statistical analysis on clinical context

Intended Learning Outcomes

Knowledge and Understanding	* 1. List the types of study designs * 3. Define clinical epidemiology and its basic components * 6. Describe the public health surveillance system and its uses in the community setting * 8. Describe when to use the different biostatistical tools and how to interpret the results on clinical context. * 2. Describe the study design, uses, advantage, disadvantage, and limitations * 4. Explain the usefulness of screening tests, and calculate sensitivity, specificity, and predictive value
Intellectual Skills	* 7. Understand quantitative and qualitative research
Professional Skills	* 4. Explain the usefulness of screening tests, and calculate sensitivity, specificity, and predictive value
General Skill	* understand the general concept of epidemiology and biostatistics

Course Contents

1 - Introduction
2 - Epidemiological concepts
3 - Measuring health & disease
4 - Measurement of risk of diseases
5 - Epidemiological studies & clinical epidemiology
6 - Screening & diagnostic tests of diseases
7 - Surveillance of chronic diseases
8 - Bias, confidence & interaction, Association & causation of diseases
9 - Basics of medical statistics
10 - Screening & diagnostic tests of diseases
11 - Concepts & Principles of Statistics
12 - Organizing & Displaying Data
13 - Summarizing Data
14 - Tests of Significance, Computer Skills

Teaching and Learning Methods

1 - presentations
2 - assignments
3 - active participation of students
4 - Group discussions

Students Assessment

Assessment Method	TIME	MARKS
Exam	Midterm first	20
exam	midterm second	20
Attendance and active participation	All over the course	10
Exam	Final	50

Books and References

Course note	1. Handouts and other references and materials will be assigned for each session
Essential books	2. Clinical Epidemiology and Biostatistics. The National Medical Series for Independent Study. Middle East Edition
	4. Basic Statistics for Health Sciences
Recommended books	3. Basic Epidemiology. WHO