Course Specifications

General Information

Course name	Research Methodology & Biostatistics
Course number	MDCN2427
Faculty	
Department	
Course type	Major Needs
Course level	2
Credit hours (theoretical)	4
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - To identify general concepts and to select research topic

2 - To select Research Objectives and Study Variables

3 - To read and do Literature review

4 - To know and differentiate between different research methods

5 - To learn the ethical issues in Research

Intended Learning Outcomes

Knowledge and Understanding	* Student is expected to know health sciences relevant statistical analyses
	* Provide students with the knowledge of clinical manifestations, complications, goals of statistical analyses.
Intellectual Skills	* Student is expected to identify criteria of which statistical analysis to apply based on the experimental needs
	* Learn how to interpret and communicate the statistical results
	* Develop the ability to design a statistical analysis.
	* Students are expected to start constructing data sets using statistics software such as SPSS and analyze it.
Professional Skills	* Student is expected to read research papers and analyze the rationale behind using certain statistical analysis.
General Skill	* Enable students present their data in a scientific format.
	* Enable students to collect and interpret information from medical research papers

Course Contents

1 - Introduction – Basic knowledge of medical research and the differences between medical research and medical management
2 - General concepts -Research topic selection
3 - Research Objectives and Study Variables
4 - Literature review and References
5 - Research methods - Quantitative Research
6 - Qualitative Research
7 - Study Population and Sampling
8 - Ethical issues in Research
9 - Study instruments
10 - Validity and Reliability in Research
11 - Basics in SPSS
12 - Data Management and Analysis
13 - Implementation Science

Teaching and Learning Methods

1 - Lectures
2 - Practical computer training

Students Assessment

Assessment Method	TIME	MARKS
quizzes		20
assignment		20
midterm exam	1 hr	30
final exam	2 hr	40

Books and References

Course note	Medical research methodology and biostatistics