

## Data Analysis for Health and Medicine-Part I

### **Course Description:**

This course introduces the fundamental concepts and techniques of descriptive statistics, focusing on methods for organizing, summarizing, and presenting data. Students will learn how to describe data sets using measures of central tendency, measures of dispersion, frequency distributions, and graphical representations.

**Target audience:** Undergraduate and Postgraduate Students, Researchers and Academics

**Prerequisites:** students must possess basic math and computer literacy.

### **Course Learning Outcomes (CLOs)**

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

1. **Explain** the fundamental concepts and importance of descriptive statistics in data analysis.
2. **Differentiate and classify** data according to types and scales of measurement.
3. **Present** data using appropriate tables and graphical methods.

### **Summary:**

- **Mode:** Fully online
- **Duration:** 2 weeks
- **Equivalent Credit:** 1 credit hour (based on 40 SLT hours per 2-credit system)

Learning Activities	Description	SLT (Hours)
Online Lecture / Video Lessons	Concepts of descriptive statistics, data types, scales of measurement, and data presentation methods	7
Online Discussion / Interactive Forum	Clarification of key concepts and examples	2
Practical Exercises / Self-Learning Activities	Practice in classifying data, creating tables, and drawing graphs using manual methods	4

Learning Activities	Description	SLT (Hours)
Reading & Self-Directed Study	Reading lecture notes, online resources, and practice problems	10
Assessment (Quiz / Assignment)	Short quiz or practical task to interpret data and graphs	17
Total Student Learning Time (SLT)		40 hours

### Assessment

Formative Assessment		
	Assignment	40%
Summative Assessment		
	Problem solving question	20%
	Mini project	40%
Total		100%

### Academic staff involved

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### **References:**

1. Jekel's Epidemiology, Biostatistics, Preventive Medicine, and Public Health. (David L, 5th edition, 2020)
2. Biostatistics: A Foundation for Analysis in the Health Sciences by Wayne W. Daniel and Chad L. Cross. Eleventh Edition, 2019