Course Description Form

1. Course Name: Statistical applications

2. Course Code:

3. Semester / Year:1-2 2023/2024

4. Description Preparation Date 2023/2024

5. Available Attendance Forms: Daily attendance

6. Number of Credit Hours (Total) / Number of Units 4 Hours (Total) 30 week

7. Course administrator's name (mention all, if more than one name)

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٨. Course Objectives

Course Objectives	**Learning of statistical principles** •
	Learning of statistical screening •
	Learning of study design •
	Carry out statistical analysis •

9. Teaching and Learning Strategies

Strategy	1. Education Strategy Collaborative Concept Planning 2- Brainstorming education strategy. 3. Education Strategy Notes Series 4- Presentation, training, discussion research and reports

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	4	Knowledge	Introduction	Use the whiteboard and display	Daily exam and oral questions

2	4	Knowledge	Data types	Use the whiteboard and display	Daily exam and oral questions
3	4	Knowledge	Binomial distribution	Use the whiteboard and display	Daily exam and oral questions
4	4	Knowledge	Data description I	Use the whiteboard and display	Daily exam and oral questions
5	4	Knowledge	Data description II	Use the whiteboard and display	Daily exam and oral questions
6	4	Knowledge	Sample and population	Use the whiteboard and display	Daily exam and oral questions
7	4	Knowledge	Types of clinical trials	Use the whiteboard and display	Daily exam and oral questions
8	4	Knowledge	Review	Use the whiteboard and display	Daily exam and oral questions
9			Mid-term exam		
10	4	Knowledge	Data analysis I	Use the whiteboard and display	Daily exam and oral questions
11	4	Knowledge	Data analysis II	Use the whiteboard and display	Daily exam and oral questions
12	4	Knowledge	Principle of probability I	Use the whiteboard and display	Daily exam and oral questions
13	4	Knowledge	Principle of probabilitry II	Use the whiteboard and display	Daily exam and oral questions
14	4	Knowledge	Review	Use the whiteboard and display	Daily exam and oral questions
15			Course I final exam	Use the whiteboard and display	Daily exam and oral questions
16	4	Knowledge	Correlation	Use the whiteboard and display	Daily exam and oral questions
17	4	Knowledge	Regression	Use the whiteboard and display	Daily exam and oral questions
18	4	Knowledge	Review of data analysis	Use the whiteboard and display	Daily exam and oral questions
19	4	Knowledge	Unpaired t-test	Use the whiteboard and display	Daily exam and oral questions
20	4	Knowledge	Paired t-test	Use the whiteboard and display	Daily exam and oral questi ons
21	4	Knowledge	One tail vs two tail t-test	Use the whiteboard and display	Daily exam and oral questions

22	4	Knowledge	Non-parametric test	Use the whiteboard and display	Daily exam and oral questions
23	4	Knowledge	ANOVA test	Use the whiteboard and display	Daily exam and oral questions
24	4	Knowledge	Kruskal wallis test	Use the whiteboard and display	Daily exam and oral questions
25	4	Knowledge	Review	Use the whiteboard and display	Daily exam and oral questions
26	4		Mid-term exam		
27	4	Knowledge	Chi-square test	Use the whiteboard and display	Daily exam and oral questions
28	4	Knowledge	Sensitivity and specificity	Use the whiteboard and display	Daily exam and oral questions
29	4	Knowledge	Review	Use the whiteboard and display	Daily exam and oral questions
30			Final exam		

11. Course Evaluation

5 marks are calculated on reports
5 points are calculated on daily exams
5 degrees are calculated on the daily preparation
And the rest of the grade is for the monthly exams

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Biostatistics Books
Main references (sources)	Curriculum scheduled within t sectoral committees
Recommended books and references (scientific journals, reports…)	Principle of biostatistics and mathematics
Electronic References, Websites	GraphPad prism guideline

Assist lecturer: Hasanain A Odhar