هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

2023
TP-153

Course Specification
(Bachelor)

Course Title:	Biostatistics
Course Code:	MDS26112
Program:	Health track
Department:	Basic Medical Sciences
College:	Applied Medical Sciences
Institution:	University of Bisha
Version:	7
Last Revision Date:	24 August 2023

وزارة التعليم - جامعة بيشة
Ministry Of Education - University Of Bisha
وكالة الجامعة للشؤون التعليمية

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours: 2(2+0)					
2. Course type					
A.	☐University	☐ College	☐Department	☒ Track	☐Others
B.	☒ Required		☐Elective		
3. Level/year at which this course is offered: (1st level / 1st year)					
4. Course general Description:					
This is an introductory course to biostatistics, encompasses the study of number of important statistical concepts. The knowledge and skills provided by this course are of paramount importance for better use and understanding of medical data. It is a theory course, in which lectures will provide the appropriate knowledge required for conducting biostatistical tests and interpretation of the statistical analysis results.					
5. Pre-requirements for this course (if any)**:**					
NA					
6. Pre-requirements for this course (if any)**:**					
NA					
7. Course Main Objective(s):					
Introduces the student to the basic principles and concepts of statistics in general and biostatistics in particular, and enable the student to conduct the statistical analysis to solve and foresee medical problems based, and interpret the medical data under a statistical context.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	28	93.33%
2	E-learning	2	6.66%
3	Hybrid • Traditional classroom • E-learning		
4	Practical		
5	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	28
2.	**Laboratory/Studio**	-
3.	**Field**	-
4.	**Tutorial**	
5.	**Others (specify) E-learning**	2
6.	**Self-learning**	45
Total		75

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Demonstrate knowledge of the important terminology and definitions in biostatistics	K1	Lecture, and in-class discussions	Written exam and in-class evaluation
1.2	Describe the general principles and concepts of biostatistics related to health issues	K2	Lecture, E. learning activity	Written exam,
1.3	Explain medical situations under the statistical context	K3	Lecture & in-class discussions	Written exam, assignments, problem solving, and E-learning activity
2.0	**Skills**			
2.1	Design different data representation diagrams	S2	Lecture	Written exam and Problem solving
2.2	Calculate and infer different statistics and parameters	S3		
3.0	**Values, autonomy, and responsibility**			

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
3.1	Exhibit quality interpersonal and decision-making skills	V3	Lecture, In-class discussions, E. learning activity	Written exam, and In-class evaluation, problem-solving
3.2	Show propensity towards life-long learning	V4		

C. Course Content

No	List of Topics- Theory	Contact Hours
1	Introduction to biostatistics and terminology	2
2	Presentation of medical data: tabulation	2
3.	Presentation of medical data: graphical presentation	2
4.	Descriptive statistics: Measures of central tendency	4
5.	Descriptive statistics: Measures of dispersion	4
6.	Correlation: Pearson, Spearman, Chi square and Phi coefficients	4
7.	Correlation: Scatter plot and correlation	2
8.	Regression analysis	2
9.	Probability	4
10.	Inferential biostatistics: Estimation	2
11	Inferential biostatistics: Hypothesis testing	2
	Total	30

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Assignments and E-learning activities	All through	20%
2.	Midterm exam	8th	30%
3.	Final exam	End of Semester	50%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	• Chap T. Le, Lynn E. Eberly. Introductory Biostatistics. 2nd ed. Wiley. 2016. ISBN: 978-0-470-90540-1

	1. Abhaya Indrayan, Rajeev Kumar Malhotra. Medical Biostatistics. CRC press. 2018. ISBN 9781498799539
Supportive References	Wayne W. Daniel, Chad L. Cross. Biostatistics: a foundation for analysis in the health sciences. 11th ed. Wiley. 2018. ISBN: 978-1-119-49657-1
Electronic Materials	1. Saudi Digital Library
Other Learning Materials	Saudi electronic library

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Middle-sized classroom
Technology equipment (projector, smart board, software)	Data show, Smart Board, Software
Other equipment (depending on the nature of the specialty)	-

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students, Faculty staff members, Program Leaders, Peer Reviewers	Direct / Indirect
Effectiveness of Students assessment	Faculty staff members, Program Leaders, Peer Reviewers	Direct / Indirect
Quality of learning resources	Students, Faculty, Program Leaders, Peer Reviewer.	Direct / Indirect
The extent to which CLOs have been achieved	Faculty and program quality unit, Program Leaders, Peer Reviewer.	Direct / Indirect
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	**DEPARTMENT COUNCIL**
REFERENCE NO.	**1/1444-1445**
DATE	**5/2/1445H**

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