هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

2023
TP-153

Course Specification
(Bachelor)

Course Title:	**Principles of Epidemiology for Health Sciences**
Course Code:	**PHE26232**
Program:	**Bachelor of Sciences in Public Health**
Department:	**Public Health**
College:	**Applied Medical Sciences**
Institution:	**University of Bisha**
Version:	**1**
Last Revision Date:	**2**-8-2023

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: 4h level 2nd year					
4. Course general Description:					
Focuses on the principles and strategies in Public Health Epidemiology including measuring health and disease, study designs, disease causation, threats to validity of study results, effect measure modification, disease screening, surveillance, and outbreak investigation.					
5. Pre-requirements for this course (if any)**:**					
PHE26221					
6. Co-requirements for this course (if any)**:**					
NA					
7. Course Main Objective(s):					

1. **Explain fundamental concepts of Epidemiology including disease causation, study designs, threats to the validity of study results, effect measure modification, disease screening, disease surveillance and outbreak investigation**
2. **Equip the students with skills in computing and interpreting measures of disease frequency, association and potential impact**
3. **Equip the students with skills in determining the direction and magnitude of confounding as well as the presence of effect measure modification.**

2. Teaching mode

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	27	90%
2	E-learning	3	10%
3	Tutorial		
4	Interactive learning		
5	Practical		

3. Contact Hours:

No	Activity	Contact Hours

1.	Lectures	27
2.	E-learning	3
3.	Practical	
4.	Interactive learning	
5.	Seminars	
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	Explain the fundamental concepts of Epidemiology including outbreak investigation, screening and surveillance.	K2	Lecture-discussion	Written assessment
1.2	Differentiate various epidemiologic study designs.	K2	Lecture-discussion	Written assessment
1.3	Explain the concepts of random and systematic errors, confounding, and effect measure modification and their role in the interpretation of epidemiologic results.	K2	Lecture-discussion	Written assessment
1.4	Differentiate causation from association.	K2	Lecture-discussion	Written assessment
2.0	**Skills**			
2.1	Compute for appropriate measures of disease frequency and association.	S1	Lecture-discussion Epidemiological Calculator Demonstration	Written assessment Practical Examination
2.2	Determine the direction and magnitude of confounding.	S1		
2.3	Determine the presence of effect measure modification.	S1		
3.0	**Values, autonomy, and responsibility**			
3.1	Make decisions based on evidence and sound arguments while upholding personal integrity, professionalism and ethical principles.	V1	Lecture-discussion Case study	Written assessment Practical Examination

C. Course Content

No	List of Topics (Theory)	Contact Hours
1.	Basic Concepts and Strategies in Epidemiology	2
2.	Measures of Disease Frequency	2
3.	Standardization of Rates and Ratio	2
4.	Measurement and Errors in Measurements	2
5.	Cross-sectional Study	2
6.	Cohort Study	2
7.	Case-control Study	2
8.	Experimental Study	2
9.	Random Error and Systematic Error	2
10	Confounding	2
11.	Effect Measure Modification	2
12	Disease Causation	2
13	Outbreak Investigation	2
14.	Disease Screening	2
15.	Public Health Surveillance	2
Total		**30**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quiz 1	3rd	5%
2.	E Learning activities	4, 6, 10th	15%
3.	Mid-Term Examination	8th	20%
4.	Project/ seminar	11th	10%
5.	Final Examination	End of semester	50%
	Total		**100%**

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Aschengrau, A. and Seage, G. R. III (2014). **Essentials of Epidemiology in Public Health** (3rd Edition). Burlington, MA: Jones and Bartlett Learning. ISBN-13: 978-1-4496-5733-8
Supportive References	Bonita, R., R. Beaglehole,and T. Kjellström. (2006). **Basic Epidemiology** 2nd edition. Geneva: World Health Organization. ISBN 9789241547079 Triis, R.H. and Sellers, T.A. (2014). **Epidemiology for Public Health Practice** (5th Edition). Burlington, MA: Jones & Bartlett Learning. ISBN-13: 978-1-4496-6549-4

	Centers for Disease Control and Prevention (2012). **Principles of Epidemiology in Public Health Practice: An Introduction to Applied Epidemiology and Biostatistics** (3rd Edition). Atlanta: U.S. Department of Health and Human Services, CDC. Aschengrau, A. and Seage, G. R. III (2014). **Essentials of Epidemiology in Public Health** (3rd Edition). Burlington, MA: Jones and Bartlett Learning. ISBN-13: 978-1-4496-5733-8
Electronic Materials	www.openepi.com www.cdc.gov
Other Learning Materials	Digital library, at university of Bisha

2. Required Facilities and equipment

Items	Resources
facilities	Middle size classroom well-equipped laboratory
Technology equipment	Multimedia projector Smart board
Other equipment	• NA

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students, Faculty, Quality committee	Direct / indirect - Using well-structured questionnaire
Effectiveness of student's assessment	Faculty members Peer Reviewer	Direct / indirect - Continuous reviewing and course portfolio
Quality of learning resources	Faculty members Curriculum committee	Direct / indirect - Annual review course report
The extent to which CLOs have been achieved	Course coordinator	Direct / indirect

G. Specification Approval

COUNCIL /COMMITTEE	**PH DEPARTMENT BOARD**
REFERENCE NO.	
DATE	

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