هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

2023
TP-153

Course Specification

Course Title:	**Environmental Epidemiology**
Course Code:	218ENW-2
Program:	Environmental Protection Technology diploma program
Department:	--
College:	Applied College in Al-Aarda
Institution:	**Jazan University, Jazan**
Version:	**1st**
Last Revision Date:	

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A. General information about the course:

1. Course Identification

1. Credit hours: (2)					
2. Course type					
A.	☐University	☐ College	■ Program	☐Track	☐Others
B.	✓ ☐ Required		☐Elective		
3. Level/year at which this course is offered: (Level 3/2nd Year)					
4. Course general Description:					

Environmental Epidemiology is an advanced epidemiology course that focuses on who, where, when and how exposure to air pollution, heavy metals from industrial pollutants might impact negatively on health. The course will provide an overview of major study designs in environmental epidemiology, it will discuss disease outcomes related to environmental exposures, including cancer and diseases of cardiovascular, respiratory, urinary, reproductive, and nervous systems. Case studies in environmental epidemiology will be discussed to allow student criticize research methods and local related findings.

5. Pre-requirements for this course (if any)**:**

110ENW-2

6. Co-requisites for this course (if any)**: N/A**

7. Course Main Objective(s):

Upon completion of the course, it is expected that the student will have acquired familiarity with the following concepts:

- **Describe the major study designs in environmental epidemiology**
- **Train students on the most appropriate exposure assessment methods for different environmental epidemiology research scenarios**
- **Implement a systematic review that summarizes and critiques the existing epidemiologic literature for a given environmental or occupational health issue**
- **Apply an appropriate study designs and data analysis methods for different environmental epidemiology research.**

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	100%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	30
2.	**Laboratory/Studio**	
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		30

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

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Define the basic concepts of environmental epidemiology	**K1**	Lectures, Discussions, Case Studies	Quiz, Mid-term exam Final Exam
1.2	Identify the exposure assessment methods for different environmental epidemiology	**K2**	Lectures, Discussions, Case Studies	Quiz, Mid-term exam Final Exam
2.0	**Skills**			
2.1	Apply an appropriate study designs for different environmental epidemiology research question.	**S1**	Lectures, Discussions, Case Studies	Quiz, Mid-term exam Final Exam

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
2.2	Implement a systematic review for a given environmental or occupational health issue.	**S2**	Lectures, Discussions, Case Studies	Quiz, Mid-term exam Final Exam
2.3				
3.0	**Values, autonomy, and responsibility**			
3.1	Work with multi-disciplinary teams to communicate effectively both in written and oral forms.	**V1**	Discussions ,Lectures ,Group presentations	group work, quizzes, assignments, Written exams

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction of environmental epidemiology	3
2.	Context of Environmental Epidemiology	3
3.	Review of Epidemiological principles	3
4.	Exposure assessment	3
5.	Health effects assessment	3
6.	Practical Issues in study implementation	3
7.	Critical assessment of environmental epidemiology literature	3
8.	Environmental epidemiology in public health practice	3
9.	Environmental epidemiology for policy and management	2
10.	Environmental epidemiology for policy and management	2
11.	Agenda for the future in environmental epidemiology	2
Total		**30**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quiz 1	Continuous	5%
2.	Mid Term Exam	9th-10th week	30%
3.	Quiz 2	Continuous	5%
4.	Academic Essay/Assignment	Continuous	10%
5.	Class participation	Continuous	10%
6.	Final Examination	16-18	40%

*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	• Ray M. Merill , nvironmental Epidemiology: Principles and Methods: Principles and Methods, Jones and Bartlett publisher , London , 2008. • Environmental Epidemiology Volume 2, Use of the Gray Literature and Other Data in Environmental Epidemiology Committee on Environmental Epidemiology and Commission on Life Sciences National Research Council NATIONAL ACADEMY PRESS Washington, D.C. 1997 • National Academies of Sciences, Engineering, and Medicine. 1997. Environmental Epidemiology, Volume 2: Use of the Gray Literature and Other Data in Environmental Epidemiology. Washington, DC: The National Academies Press. https://doi.org/10.17226/5804.-Moeller DW. 1997. Environmental health. Cambridge, MA: Harvard University Press.
Supportive References	• ATSDR public health assessment guidance manual. 1992. New York: Lewis Publishers.
Electronic Materials	http://www.cdc.gov/cdc.htm. http://www.who.org.
Other Learning Materials	Other learning material such as computer-based programs/Blackboard (LMS), University website

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Lecture Room
Technology equipment (projector, smart board, software)	**AV** **Data show** **Smart Board**
Other equipment (depending on the nature of the specialty)	**Not Applicable**

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students, Peer and program leader	Indirect (Course Evaluation Survey) - Indirect peer evaluation
Effectiveness of Students' assessment	Students, Program assessment committee	Direct/ Indirect
Quality of learning resources	Students, Faculty members	Direct/ Indirect
The extent to which CLOs have been achieved	Faculty members	Indirect
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	**BOARD OF DEPARTMENT**
REFERENCE NO.	
DATE	**03\06\2024**