

Republic of Yemen

Ministry of Higher Education & Scientific Research

21 SEPTEMBER UNIVERSITY for MEDICALS & APPLIEED

SCIENCES



Faculty of Medical Administration

**Department of Medical Services
Administration/College Requirement**

Course Specification of

Epidemiology (علم الأوبئة)

Course No. (01.02.507)

1444هـ

2022/2023

Course Identification and General Information:					
1	Course Title:	Epidemiology (علم الأوبئة)			
2	Course Code & Number:	01.02.507			
3	Credit Hours:	Credit Hours	Theory Hours		Lab. Hours
			Lecture	Exercise	
		2	2		
4	Study Level/ Semester at which this Course is offered:	Level 3/ 2 Semester			
5	Pre –Requisite (if any):	Fundamentals of Nursing			
6	Co –Requisite (if any):	Non			
7	Program (s) in which the Course is Offered:	Bachelor of Science in Medical Administration			
8	Language of Teaching the Course:	English			
9	Study System:	Regular (semester)			
10	Mode of Delivery:	Full Time			
11	Location of Teaching the Course:	University Campus			
12	Prepared by:	Asst. prof. Jamel Taher Abdulmughni			
13	Date of Approval:				

1. Course Description:

This course intends to equip students with essential concepts and applications in Epidemiology. Students will be exposed to morbidity and mortality concepts & calculations as incidence, prevalence, risk ratios, odd ratio, and relative risk. Also they will be discussing different epidemiological study designs and their characteristics.

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Asst.prof. Jamel Taher Abdulmughni	Asst.prof. Abdulwahab Saleh Al Sanabani	Asst.prof.	Asst.prof Mohammed Al-Shamahi	Asst.prof. Jamil Ahsan Mujalli

2. Course Intended Learning Outcomes (CILOs) : مخرجات تعلم المقرر		Referenced PILOs (مخرجات تعلم البرنامج)	
A. Knowledge and Understanding: Upon successful completion of the course, students will be able to:			
a1	Identify aims, uses of epidemiology and the different tools of epidemiological measures.	A2	Demonstrate knowledge and understanding on the basics of (Anatomy and physiology, nursing, nutrition, epidemiology, diseases and drugs, public health and safety, and medical information technology).
a2	Describe the dynamic of disease surveillance.		
a3	Know the practical steps for investigation of an epidemic.		
a4	Describe the different studies designs with its uses.		
B. Intellectual Skills: Upon successful completion of the course, students will be able to:			
b1	Assess epidemiological analysis results	B1	Evaluate professional performance (health and administrative) in various health sectors and organizations using scientific methods, in accordance with comprehensive quality standards and policies and health accreditation.
b2	Conclude the suitable finding of such analysis.	B2	Analyze the work environment, problems, and challenges in health organizations, and extrapolates the solutions based on scientific evidence, strategic thinking, and accurate information.
C. Professional and Practical Skills: Upon successful completion of the course, students will be able to:			
c1	Select suitable epidemiological study designs based on current health problem	C3	Apply effective leadership and communication skills in managing and developing health organizations and improving performance in accordance with the principles, standards and policies of comprehensive quality and health accreditation.
c2	Calculate incidence, prevalence, risk factors, odd ratio, and relative risks		
D. Transferable Skills: Upon successful completion of the course, students will be able to:			
d1	Manage and work in team to assess current epidemiological problem.	D1	Practice ethical behavior and teamwork in the spirit of one team.

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d2	Behave ethically during data collection and analysis.		
d3	Communicate effectively with his colleagues, top management and subordinates.	D٢	Communicates effectively with others
d4	Have the required skills to use the information technology for continuous self-learning.	D4	Use health information technology appropriately, in scientific research, management of health organizations, production, delivery and marketing of health goods and services.

3. Intended learning outcomes (ILOs) of the course:

(A) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies:

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1-Identify aims, uses of epidemiology and the different tools of epidemiological measures.	<ul style="list-style-type: none"> ▪ Lectures ▪ Discussion ▪ Presentation ▪ Self-learning ▪ Case Study (CBL) 	<ul style="list-style-type: none"> ▪ Written Exams ▪ Assignments (Homework, Team work, oral presentation and project)
a2-Describe the dynamic of disease surveillance.		
a3-Know the practical steps for investigation of an epidemic.		
a4- Describe the different studies designs with its uses.		

(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
b1-Assess epidemiological analysis results	<ul style="list-style-type: none"> ▪ Lectures ▪ Discussion ▪ Case studies (CBL) ▪ Self-Learning ▪ Problem Based Learning (PBL) ▪ Brainstorming 	<ul style="list-style-type: none"> ▪ Written Exams ▪ Assignments (Homework, Team work, oral presentation and project)
b2-Conclude the suitable finding of such analysis.		

©Alignment Course Intended Learning Outcomes of Professional and Practical Skills to Teaching

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Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
c1-Select suitable epidemiological study designs based on current health problem	<ul style="list-style-type: none"> Case studies (CBL) Problem Solving Learning (PSL) Problem Based Learning (PBL) 	<ul style="list-style-type: none"> Written Exams Assignments (Homework, Team work, oral presentation and project)
c2-Calculate incidence, prevalence, risk factors, odd ratio, and relative risks		

(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
d1- Manage and work in team to assess current epidemiological problem.	<ul style="list-style-type: none"> Discussion Case studies (CBL) Self-Learning Presentation 	<ul style="list-style-type: none"> Assignments (Homework, Team work, oral presentation and project)
d2-Behave ethically during data collection and analysis.		
d3- Communicate effectively with his colleagues, top management and subordinates.		
d4- Have the required skills to use the information technology for continuous self-learning.		

4. Course Content:

A – Theoretical Aspect:

Order	Units/Topics List	Sub Topics List	Weeks	Contact hours	Learning Outcomes
1	Epidemiology:	Definition, concept, history, aim, basic principle. Epidemiology approach.	2	4	a1 b1

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2	Basic measurement.	Tools of measurement, ratio, proportion, mortality.	1	2	a1 b2
3	Morbidity	Incidence, prevalence.	1	2	a1, a2, b1, c2
4	Descriptive and Analytical study	Cross-sectional, case control, cohort study	1	2	a4, b2, c1
5	Experimental Study.	Randomize & non-randomize with & without.	1	2	a4, b2, c1
6	Association & causation.		1	2	a4, b2, c1
7	Dynamic of disease transmission.	Mode of transmission for: Bacteria, Fungi, Parasites, Viruses	2	4	a1, a2
8	Screening test	Screening test	1	2	a2, a3, a4
9	Disease surveillance	Definition, type	2	4	b1, b2
10	Epidemic investigation	Definition, type	1	2	a1, a3
11+12	PPL Training	Case study Case report	2	4	a2, a3, a4, c2 d1, d2, d3, d4
13	Final exam		1	2	
Number of Weeks /and Units Per Semester			16	32	

V. Teaching Strategies of the Course:

- Interactive lectures
- Discussion
- Self-learning
- Presentation
- Case study (CBL)
- Problem Based Learning (PBL)
- Problem Solve Learning (PSL)

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VI. Assessment Methods of the Course:

- Written exam (mid and final terms and quizzes)٤
- Assignments (Homework, Team work, oral presentation and project)

5. Assignments:

No	Assignments	Aligned CILOs(symbols)	Week Due	Mark
1	Homework	b1,b2 d1,d2,d3,d4	Continuous	5
2	Group assignment	b1,b2٤c1,c2 d1,d2,d3,d4	7-12	5

6. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Homework Group assignment	Continues	10	10%	b1,b2٤c1,c2 d1,d2,d3,d4
3	Midterm Exam	7-8	20	20%	a1,a2,a3٤c1,c2
4	Final Exam	16	70	70%	a1,a2,a3٤b1,b2٤c1,c2
	Total		100	100%	

7. Learning Resources:

1- Required Textbook(s) (maximum two).

1. Park's text book of Preventive and social, medicine, 16th edition, m/s Banarsidas Bhanot publishers 1167, Prem Nagar. Jabalpur, 482001 India.
2. Wallace Public Health and Preventive Medicine 15th ed, Macgraw-Hill companies, New York.

2- Essential References.

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	<ol style="list-style-type: none"> Lecture-notes. Sandra W. Roush, Lynne McIntyre, Linda M. Baldy: Manual for the Surveillance of Vaccine-Preventable Diseases, 5th Edition 2012; CDC. CDC; The blue book: Guidelines for the control of infectious diseases, 2010.
3- Electronic Materials and Web Sites etc.	
	<ol style="list-style-type: none"> World Health Organization: www.who.int Centers for Disease Control and Prevention: www.cdc.gov Epidemiology Super course: www.pitt.edu/~super1/ International Epidemiological Association: www.IEAweb.org Oxford University Press: www.oup.org

X. Course Policies: (Based on the Uniform Students' By law (2007))

1	Class Attendance: Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

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Faculty of Medical Administration

Department of Medical Services Administration/College Requirement

Course Plan (Syllabus) of Epidemiology (علم الأوبئة)

Course No. (01.02.507)

I. Information about Faculty Member Responsible for the Course:						
Name of Faculty Member:	Asst.prof. Jamel Taher Abdulmughni					
Location & Telephone No.:						
E-mail:	SAT SUN MON TUE WED THU					
Office Hours						
Course Identification and General Information:						
١	Course Title:	Epidemiology (علم الأوبئة)				
٢	Course Code & Number:	01.02.507				
3	Credit Hours:	Credit Hours	Theory Hours		Lab. Hours	
		2	Lecture	Exercise		
4	Study Level/ Semester at which this Course is offered:	Level 3 / 2 Semester				
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Course Intended Learning Outcomes (CILOs) : (مخرجات تعلم المقرر)

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| a1 | Identify aims, uses of epidemiology and the different tools of epidemiological measures. |
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B. Intellectual Skills: Upon successful completion of the course, students will be able to:

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| b1 | Assess epidemiological analysis results |
| b2 | Conclude the suitable finding of such analysis. |

C. Professional and Practical Skills: Upon successful completion of the course, students will be able to:

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|----|---|
| c1 | Select suitable epidemiological study designs based on current health problem |
| c2 | Calculate incidence, prevalence, risk factors, odd ratio, and relative risks |

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| d1 | Manage and work in team to assess current epidemiological problem. |
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8	Screening test	Screening test	1	2	a2, a3, a4
9	Disease surveillance	Definition, type	2	4	b1, b2
10	Epidemic investigation	Definition, type	1	2	a1, a3
11+12	PPL Training	Case study Case report	2	4	a2, a3, a4, c2 d1, d2, d3, d4
13	Final exam		1	2	
Number of Weeks /and Units Per Semester			16	32	

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V. Teaching Strategies of the Course:

- Interactive lectures
- Discussion
- Self-learning
- Presentation
- Case study (CBL)
- Problem Based Learning (PBL)
- Problem Solve Learning (PSL)

VI. Assessment Methods of the Course:

- Written exam (mid and final terms and quizzes)٤
- Final practical exam
- Assignments (Homework, Team work, oral presentation and project)

2. Assignments:

No	Assignments	Aligned CILOs(symbols)	Week Due	Mark
1	Homework	b1,b2 d1,d2,d3,d4	Continuous	5
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3. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
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- CDC; The blue book: Guidelines for the control of infectious diseases, 2010.

3- Electronic Materials and Web Sites etc.

- World Health Organization: www.who.int
- Centers for Disease Control and Prevention: www.cdc.gov
- Epidemiology Super course: www.pitt.edu/~super1/
- International Epidemiological Association: www.IEAweb.org
- Oxford University Press: www.oup.org

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