



21 September University for Medical and Applied Sciences
Deanship of Higher Studies
Faculty of High Nursing
Department: Family and Community Health Nursing



Master of Public Health in Epidemiology

Program Specifications

2023

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professionals with a high quality postgraduate training programme in Public Health in epidemiology sciences. These graduates will be able to provide high standard, ethical, holistic and culture-sensitive care in the area of Epidemiology, as well as in relevant education and research.

Promising Jobs:

- 1- Epidemiologist
- 2- Health Care Consultant
- 3- Biostatistician
- 4- Social and Community Service Manager
- 5- Clinical supervisor and Health educators

3. University Vision, Mission, Values, and Objectives:

3.1. University vision:

A contemporary university with national responsibility and a faith identity.

3.2. University mission:

Leading the transformation in the management and delivery of health care with all partners by setting a standard of excellence in education and medical and applied research in a way that meets the needs of Yemeni society, its privacy and regional influence.

3.3 University Core values:

1. Leadership and Influence
2. Distinction and creativity
3. work as one team.

3.4. University Objectives:

- 1- Ensuring the application of quality standards and having the distinction standards in medical and applied sciences, scientific research and community service.
2. Adopting student-centered learning, the partnership with them for life, consolidating the principles of national responsibility and faith identity, looking after them and developing their capabilities after graduation and during work.
3. Attracting and Eemploying scientists, cadres and talents to gain minds and put an end for the “brain drain” in a way that promotes and ensures the availability of thinkers, businessmen and good citizens.
4. Developing the distinguished academic infrastructure continuously and establishing modern research and service centers with high efficiency that can give a real effect locally and regionally.
5. Enhancing the university status as a preferred partner for local, regional and international partnership through implementing creative styles of education, exchanging researches and knowledge, and

health, determinants of health, distribution of diseases and disorders and factors responsible for such health and disease pattern in the population.

6.2.1. Specific Objectives

1. To impart theoretical and practical knowledge in the field of public health in epidemiology and to develop ability to use methods and techniques of various life sciences disciplines in the field of public health in epidemiology.
2. **Demonstrates** a solid knowledge base with the capability to analyze public health problems related to diseases, disorders, and related community issues.
3. **Evaluate** interventions and policy alternatives used in solving- health-related problems within the financial, socio-cultural, environmental and political framework of Yemen and its surrounding region.
4. **Comprehensive** understanding of various components of social determinants of health and health inequity.
5. Plan, manage, monitor, and evaluate interventions in the field of public health.
6. **Utilize**/apply the concepts, theories, and principles of public health in epidemiology science and demonstrate advance competence in practice in the field of public health.
7. **Enhance** evidence-based decision making through conducting public health research, interpreting, and utilizing the findings from health-related research.
8. Demonstrate the ability to plan and effect change in public health in epidemiology practice and in the health care delivery system.
9. **Apply** current research methods in key areas of chronic disease epidemiology, infectious disease epidemiology and environmental exposure.
10. Play as an advocator of public health policies and communicate public health messages to diverse audience effectively.
11. **Create** interlinkages between health and development at local, national, and global levels, and be able to apply that in health program planning.

7. Program Standards & Benchmarks:

Academic Standards:

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Program Benchmarks:

1. University of Drexel
<https://drexel.edu/dornsife/academics/degrees/online-mph-in-epidemiology/>
2. **University of East Tennessee State**
https://catalog.etsu.edu/preview_program.php?catoid=37&pooid=12625
3. **University of Eastern Virginia Medical School and Old Dominion.**
https://www.evms.edu/education/masters_programs/graduate_program_in_public_health/tracks_certificates/epidemiology_track/
4. **Harvard University**
<https://www.hsph.harvard.edu/admissions/degree-programs/online-mph-in-epidemiology>
5. **King Saud Abdul-Aziz University - College of Public Health in epidemiology and Health Informatics**
<https://www.ksau>
6. **Jordan University of Science and Technology- Jordon**
<https://www.just.edu.jo/ar/FacultiesandDepartments/FacultyofMedicine/Departments/CommunityMedicine>
7. **Al-Razi University –Yemen**
<https://alraziuni.edu.ye/posts>

8. Graduate Attributes:

Upon successful completion of an postgraduate Master degree in Public Health in epidemiology program, graduates will be able to:

- 1- **Care provider (function role):** In community health practice, providing care is different than in communities, this is because the target of service expands beyond the individuals to include families, groups and communities.
- 2- **Educator:** Health teaching is considered one of the major functions of the public health in epidemiology workers, Teaching is a necessary role function for health promotion, health maintenance, prevention of disease and welfare to individuals and societies; this could be achieved by sharing information clinics or informally at home
- 3- **Advocator:** The public health in epidemiology workers acts as advocate for the individual, group, or community client. The role of the public health in epidemiology workers in client advocacy is to help the client to gain greater independence and direct the health care system to the needs of the client by influencing change.
- 4- **Researcher:** The researcher role is an integral part of public health in epidemiology practice, it helps to identify needs, evaluate effectiveness of care, and develop theoretical basis for public health in epidemiology practice.
- 5- **Epidemiologists:** The study the distribution and determinants of health and disease in populations.

9. Program Intended Learning Outcomes (PILOs):

A. Knowledge and Understanding:

Upon successful completion of the postgraduate master's degree in public health in epidemiology & Epidemiology Program, the graduates will be able to:

A1. Demonstrate adequate knowledge and skills to epidemiology and a wide range of public health topics, health promotion, health management, PHC and RHC, nutrition, demography, monitoring and evaluation of health programs, occupational and environmental health.

A2. Discuss appropriate documentation of fundamental principles of public health and epidemiology and acquire knowledge on the concept and principles of modern technologies of public health in epidemiology practice and research.

A3. Identify major contribution of epidemiology and PH in the domain of health promotion and disease preventing and control

A4. Identify of Public Health in epidemiology applied to maximizing population health gain from the exploration, understanding, and limiting of modifiable risk factors for disease;

A5. Recognize research techniques, including an understanding of the strengths and limitations of epidemiological methods, biostatistics as well as those of other Public Health in epidemiology methods for population health improvement;

A6. Describe knowledge and understanding of the essential facts, concepts, principles and theories relevant to the student's chosen research project and management and communication skills, including problem definition, project design and management, decision processes, teamwork, written and oral reports, scientific publications

A7. Understand and apply ethical principles in research and evaluation

B. Cognitive/ Intellectual Skills:

Upon successful completion of the postgraduate master's degree in public health in epidemiology Program, the graduates will be able to:

B1. Analysis a management plan for common community disease and epidemiology surveillance.

B2. Compare between basic and applied Public Health in epidemiology in terms of the various underlying approaches and the range of skills required to carry out Public Health action and be creative in the solution of community problems and in generating and testing of hypotheses.

B3. Explore to appropriate investigations between Endemic, Outbreak, Epidemic, and pandemic and how to be controlled and prevented.

C. Practical and Professional Skills:

Upon successful completion of the postgraduate master's degree in public health in epidemiology & Epidemiology, the graduates will be able to:

C1. Perform epidemiological studies and use most common Public Health in epidemiology care modalities, equipment and monitoring technique used in various situations in the Community.

C2. Apply preventive, promotive, rehabilitative and palliative services to the people and undertake evidence-based research and application of knowledge into practice in public health.

C3. Analyze the roles of socio-economic factors in health inequity.

C4. Apply scientific research methods and apply appropriate measurement and data analysis techniques to evidence underpinning the study of Public Health in epidemiology and Epidemiology.

C5. Demonstrate respect to different cultures, religions and values and manage all patients equally regardless of their backgrounds.

D. General and Transferable Skills:

Upon successful completion of the postgraduate Master degree in Public Health in epidemiology & Epidemiology program , the graduates will be able to:

D1. Develop a lifelong interest to continue learning, improve skills, acquire, and apply up-to-date knowledge and new skills work.

D2. Communicate clearly and effectively with patients, their families, health care professionals and the community through verbal, written or digital methods.

D3. Use of computer and statistical software program to entry, analysis, presentation and interpretation of data and explore practice, ethical, legal and interpersonal dimensions within the Communities.

10. Alignment of Program's PILO's with Program's Objectives

Program PILOs	Program Objectives				
	PObj1	PObj2	PObj3	PObj4	PObj5
A1	√			√	√
A2		√		√	
A3		√	√		√
A4		√		√	
B1	√		√		√
B2		√		√	
B3			√		√
C1	√	√		√	
C2		√			√

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12. Assessment Strategies

Assessment Strategy	Description
Written tests. (Mid and final terms and quizzes)	Mid-term test is conducted in the 8 th week and final exam is conducted at the end of each course. Both tests are closed book, closed notes. quizzes are related to past as well as topics discussed in the period. This helps students develop self-confidence, readiness, and accuracy in major exams.
Quizzes	Continuous assessment of the students, keeps students informed with what had studied
Assignments	Individual or group duty
First term exam	Long or short essays performed in the 4 th week
Mid-term exam	Long or short essays performed in the 7 th week
Final term exam	Conducted at the end of each course
Seminars (group, individualized)	Individualized or grouped discussion about specific topic
Written reports about field training	Written documentation about field training
Case presentation	Report written and presented by the student about specific case

12.1 Mark allocation:

According to the recent trends in public health education, the continuous assessment will be given more emphasis, and overweigh the end of course assessment.

The allocated mark for each of the modules is 100 marks.

The 100% of the allocated marks for this course will be divided as follows:

Assessment and Evaluation tools	Nature of assessment and evaluation	Percent
Ongoing assessment through class participation and class exercises	Continuous	5%
Presentation		5%
Attendance	Continuous	10%
End subject Exam		20

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Summative assessment	At the end of each course assessment	60%
Total		100%

13. Alignment of Program Intended Learning Outcomes (PILOs) to Teaching Strategies and Assessment Methods:

PILOs	Teaching Strategy	Assessment Methods
Knowledge and Understanding A1, A2, A3, A4	<ul style="list-style-type: none"> Interactive lectures Seminars and student presentations Brain storming Small group for discussing 	<ul style="list-style-type: none"> Written tests (mid and final terms and quizzes),
Intellectual Skills B1, B2, B3	<ul style="list-style-type: none"> Interactive lecture Brain storming Small group discussions Seminars and student presentations 	<ul style="list-style-type: none"> Written tests (mid and final terms and quizzes),
Professional & practical skills C1, C2, C3	<ul style="list-style-type: none"> Interactive lectures Seminars and student presentations Brain storming Small group for discussing. Case Study 	<ul style="list-style-type: none"> Written tests (mid and final terms and quizzes), Seminar
General & Transferable Skills D1, D2, D3	<ul style="list-style-type: none"> Interactive lecture Brain storming Small group discussions Seminars and student presentations 	<ul style="list-style-type: none"> Written tests (mid and final terms and quizzes), Seminar Checklist

14. Program Contents

Compulsory Courses

No.	Level-Sem.	Course Code	Course Name	Cr. Hrs.	L	T*	P**	Prerequisites, Co-requisites
1.			Fundamentals of Public Health	3	2		3	
2.			Global Health	2	2			

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3.		Environmental health	2	2			
4.		Occupational health	2	2			
5.		Health Management	3	2			
6.		Primary Health Care (Maternal and child Health)	3	2			
7.		Nutritional Health	2	2			
8.		Medical Demography	3	2		3	
9.		Principle of Epidemiology	3	2			
10.		SAS for Epidemiological Research	3	2		3	
11.		Social Epidemiology	3	2		3	
12.		Principle oh Biostatistics	3	2		3	
13.		Epidemiology of Communicable Diseases	3	2	2	3	
14.		Epidemiology of Non-Communicable Disease	3	2	2	3	
15.		Research Methodology	3				
16.		Field Training	2			6	
Total			43	28	4	27	

* L= lecture ** T=tutorial/seminar, *** P= lab/workshop/training/clinical

* **Community Action-based Project addressing Strategically-Themed learning Objectives through Networked Environments** * SAS: Statically Analysis System .

14.1 Program Major

Compulsory Courses

No.	Level-Sem.	Course Code	Course Name	Cr. Hrs.	L	T	P	Prerequisites, Co-requisites
1			Fundamentals of Public Health	3	2		3	
2			Global Health	2	2			
3			Environmental health	2	2			
4			Occupational health	2	2			
5			Health Management	3	2			
6			Primary Health Care (Maternal and child Health)	3	2			
7			Nutritional Health	2	2			
8			Medical Demography	3	2		3	
9			Principle of Epidemiology	3	2			
10			SAS for Epidemiological Research	3	2		3	
11			Social Epidemiology	3	2		3	
12			Principle oh Biostatistics	3	2		3	
13			Epidemiology of Communicable Diseases	3	2	2	3	

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No.	Level-Sem.	Course Code	Course Name	Cr. Hrs.	L	T	P	Prerequisites, Co-requisites
14			Epidemiology of Non-Communicable Disease	3	2	2	3	
15			Research Methodology	3				
16			Field Training	2			6	
				43	28	4	27	

Field Training Courses (if any)									
No	Level-Sem.	Course Code	Course Name	اسم المقرر	Cr. Hrs.	L	T	P	Prerequisites, Co-requisites
1									
Total									

14.2. Study Plan:

First Year

Semester I

No.	Level-Sem.	Course Code	Course Name	Cr. Hrs.	L	T	P	Prerequisites, Co-requisites
1			Fundamentals of Public Health	3	2		3	
2			Global Health	2	2			
3			Environmental health	2	2			
4			Occupational health	2	2			
5			Health Management	3	2			
6			Primary Health Care (Maternal and child Health)	3	2			
Total				15	12	0	3	

Semester II

No.	Level-Sem.	Course Code	Course Name	Cr. Hrs.	L	T	P	Prerequisites, Co-requisites
1			Nutritional Health	2	2			
2			Medical Demography	3	2		3	
3			Principle of Epidemiology	3	2			
4			SAS for Epidemiological Research	3	2		3	
5			Social Epidemiology	3	2		3	
Total				14	10		9	

Semester III

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Academic Staff Requirement	Professor	Associate Professor	Assistant Professor
Academic Staff Available	2	3	3

5. Program Assessment:

Type of the Sample who Assess the program		Instruments used	Sample
1	Final year students	Questionnaire 1	10%
2	Graduate students	Questionnaire 1	10%
3	Stakeholders	Questionnaire 2	10%
4	Academic staff	Workshop	100%
5	External Evaluator	Feedback & Comments	100%
6	Final year students	Questionnaire 1	10%

6. Program Policies:

Based on University Regulations

1.	(Class Attendance) : A student should attend not less than 75 % of total hours of the subject; otherwise he/she will not be able to take the exam and will be considered as exam failure. If the student is absent due to illness, he/she should bring a proof statement from university Clinic. If the absent is more than 25% of a course total contact hours, student will be required to retake the entire course again.
2.	(Tardy) : For late in attending the class, the student will be initially notified. If he repeated lateness in attending class he/she will be considered as absent.
3.	(Exam Attendance/Punctuality) : A student should attend the exam on time. He/she is permitted to attend an exam half one hour from exam beginning, after that he/she will not be permitted to take the exam and he/she will be considered as absent in exam.
4.	(Assignments & Projects) :

Program No.	The Academic Program	The University	Website	The Faculty	The Department	The Country	Degree Award at Program Completion	Program Accrediting Body	Year of Accreditation	Study Duration
The 4 th Program	Master of Public Health in epidemiology in Epidemiology	Harvard University 45	https://www.hsph.harvard.edu/admissions/degree-programs/online-mph-in-epidemiology/	T.H. Chan School of Public Health in epidemiology	Public Health in epidemiology	USA	Master of Public Health in epidemiology in Epidemiology	CEPH An independent agency recognized by the U.S. Department of Education to accredit schools of public health, and Public Health in epidemiology programs outside schools of public health.	2001.	2 years
The 5 th Program	M.Sc of Public Health in epidemiology - EPIDEMIOLOGY	Jordan University of Science & Technology (just) 45	https://www.just.edu.jo/FacultiesandDepartments/FacultyofMedicine/Pages/viawplan.aspx?planno=195&csrt=13506673528889662812	Medicine	Public Health in epidemiology	Jordan	Master of Public Health in epidemiology in Epidemiology	accreditation from the Education and Training Evaluation Commission represented by the National Center for the Academic Accreditation and Assessment (NCAAA) for four years.	2020	2 years

Annex- 3, Survey of Number of Courses and Credit Hours of Similar Programs

University		21 September University		Drexel University		East Tennessee State University		Eastern Virginia Medical School and Old Dominion University		Jordan University of Science & Technology (just)		Average	
Total Courses and Cr. Hrs.		Cr. Hrs.	Courses	Cr. Hrs.	Courses	Cr. Hrs.	Courses	Cr. Hrs.	Courses	Cr. Hrs.	Courses	Cr. Hrs.	Courses
Program	Compulsory	39	12	45	12	41	12	40	12	45	12	42	12
Total		Cr. Hrs.	Courses	Cr. Hrs.	Courses	Cr. Hrs.	Courses	Cr. Hrs.	Courses	Cr. Hrs.	Courses		
		39	12	45	12	41	12	40	12	45	12		

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Matrix of Mapping Program PILO's with Courses

I =Introduced; P=Practiced; M/A=Mastered/Advanced

#	Course Code	Course Title	Program Intended Learning Outcomes (PILOs)													
			A. Knowledge & Understanding				B. Intellectual Skills			C. Practical Skills				D. Transferable Skills		
			A1	A2	A3	A4	B1	B2	B3	C1	C2	C3	C4	D1	D2	D3
1		Foundations of Public Health	x		x	x	x		x		x		x		x	x
2		Global Health	x		x			x	x			x	x			
3		Environmental health		x			x		x		x	x				
4		Health Systems, Policy and Management & Management	x	x					x		x	x				x
5		Advance Maternal and child Health				x		x			x					x
6		Applied Biostatistics	x			x	x				x	x				
7		Principle of Epidemiology	x				x					x	x			
8		Applications of Epid (Capstone)				x	x				x		x			x
9		SAS for Epidemiological Research	x		x	x	x					x	x		x	x
10		Environmental Epidemiology									x	x				
11		Epidemiology of Communicable Diseases and NonCommunicable Disease		x				x				x		x	x	
12		Field Training							x	x	x		x	x	x	x

Annex- 4, Comparison of Program Courses and Similar Programs Courses

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#	Current Program 21 September University					University of Drexel					University of East Tennessee State					University of Eastern Virginia Medical School and Old Dominion					University of Harvard					Jordan University of Science and Technology				
	Course	Course Hours				Course	Course Hours				Course	Course Hours				Course	Course Hours				Course	Course Hours				Course	Course Hours			
		C H	L	T	P		C H	L	T	P		C H	L	T	P		C H	L	T	P		C H	L	T	P		C H	L	T	P
1	Foundations of Public Health	3	3			Foundations of Public Health in epidemiolog y	3	3			Community-Based Methods in Public Health	3	3			Introduction to Public Health	3	3			Foundations in Health Education and Promotion	3	3			primary health care programs	3	3		
2	Global Health	3	3			Global Health	3	3			Global Health	3	3			Global Health	3	3			Global Health	3	3				3	3		
3	Environment al health	3	3		3	Environmental health	3	3			Environmental health	3	3			Environmental health	3	3			Environmental health	3	3			Environmental health	3	3		
4	Health Systems, Policy and Management	3	3			Leaderships and Management	3	3			Health Leadership & Management	3	3			Principles of health system policy and management	3	3			Health Leadership & Management	3	3			Health Leadership & Management	3	3		
5	Advance Maternal and child Health	3	3																											
6	Applied Biostatistics	3	3			Intermediate Biostatistics	3	3			Intermediate Biostatistics	3	3			Statistical Software for Public Health	3	3			Principles of Biostatistics	3	3			biostatistics i	3	3	3	



7	Principle of Epidemiology	3	3	3	Computer Applications for Public Health in epidemiology Researchers	3	3	3	3	Introduction to Research Methods	3	3	3	3	Program Evaluation & Research	3	3	research design I	3	3			
8	Applications of Epid (Capstone)	3	3		Epidemiology Methods II	3	3			Epidemiologic Methods I	3	3			Chronic Disease Epidemiology	3	3	epidemiology of chronic diseases	3	3			
9	SAS for Epidemiological Research	3	3		Research and Practice in Epidemiology	3	3			- SAS Programming with Research Applications in Public Health	3	3			Introduction to Research Methods	3	3	Program Evaluation & Research	3	3	Research design I	3	3
10	Environmental Epidemiology	3	3		Social Epidemiology Methods & Theory	3	3			Epidemiology of Chronic Disease					Environmental Epidemiology	3	3	Social Epidemiology Methods & Theory	3	3	Environmental Epidemiology		
11	Epidemiology of Communicable Diseases and NonCommunicable Disease	3	3		Epidemiology Methods II	3	3			Epidemiology of Chronic Disease	3	3			Epidemiologic Methods I	3	3	Chronic Disease Epidemiology	3	3	epidemiology of chronic diseases	3	3
12	Field Training	3	3																				



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13		3	3	6	Epidemiologic Data Analysis & Interpretation	3	3	Public Health in epidemiology Program Field Experience - Epidemiology	3	3	Biostatistics II	3	3		3	3	analytical epidemiology	3	3
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