



جامعة اليرموك
Yarmouk University
اسم الكلية
Faculty



Document Approval Date	Course Syllabus	Document Code
		AP01-PR05

Department: Clinical Medical Sciences

Official Stamp:

Course Identification	
Course Name: Community Health	Course Code and Number: MED 410
Number of Credit Hours: 9 credits	Semester: Summer
Course Status: Face to face	Teaching Language: English
Pre-requisite: MED 214, MED 310	Course Coordinator: Dr. Ola Soudah Email: ola.soudah@yu.edu.jo
Course Instructors: Dr. Reema Karasneh Dr. Moawia Khatatbeh Dr. Ola Soudah	Email: reema.karasneh@yu.edu.jo Email: moawia.m@yu.edu.jo Email: ola.soudah@yu.edu.jo

General Information	
Teaching Method	<input checked="" type="checkbox"/> Face-to-Face <input type="checkbox"/> Online <input type="checkbox"/> Blended
Course Description	This is a project based (PBL) and team based (TBL) course which designed to teach the anatomy and physiology of clinical research and how to plan and conduct one. The course covers epidemiologic methods and techniques for designing, implementing, analyzing, and interpreting observational studies, including cohort, case-control, and cross-sectional studies. In addition, this course will teach students the steps of developing a research proposal and how to communicate their research results.
Course Objectives	<ol style="list-style-type: none">1) To build the foundational knowledge and the practical aspects of clinical and field epidemiology, research methods, biostatistics, evidence based medicine, public health surveillance, screening program evaluation, and dissemination & implementation of evidence based interventions.2) To plan for an empirical observational study, develop a data collection tool, collect high quality data, conduct a descriptive analysis, to interpret the findings, and understand the application of the results to public-health and medical practice.3) To be able to read and evaluate the epidemiologic literature critically in any specific substantive area of interest.



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<p>Course Learning Outcomes (CLOs)</p>	<p>After successful completion of the course, you will be able to:</p> <ol style="list-style-type: none"> 1) Calculate the measures of disease frequencies and risks, and how to use them in surveillance, prevention and screening programs. 2) Draw an Epi-curve and solve an outbreak. 3) Formulate a well-defined, measurable research questions. 4) Write a proposal draft using Yarmouk University proposal template. 5) Choose the best study design to answer epidemiologic or clinical research question. 6) Design data collection questionnaire for descriptive studies. 7) Collect survey data and practice data quality control. 8) Manage data and understand survey codes. 9) Conduct descriptive data analysis and visualization using SPSS. 10) Differentiate between association and causality. 11) Understand studies validity threats and different strategies to minimize them. 12) Know the process of knowledge translation in terms of guideline development and/or evidence dissemination and implementation. 13) Evaluate critically the methods of medical literature. 14) Communicate and represent scientific poster. 15) Practice scientific writing, citing references, and know the anatomy of the manuscript. 16) Work in teams and effectively lead, plan, organize, communicate, collaborate, and present.
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Mapping Course Learning Outcomes CLOs to Program Learning Outcomes PLOs														
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12	PLO13	PLO14
CLO1														
CLO2														
CLO3														
CLO4														
CLO5														
CLO6														
CLO7														
CLO8														
CLO9														
CLO10									X					
CLO11									X					
CLO12											X			
CLO13									X					
CLO14						X								
CLO15														



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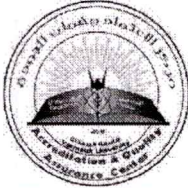
The instructor has the right to change topics content and orders to better serve the course goal. Updates will be posted on e-learning.

Course Contents, Schedule, and Instruction Methods*						
Week	Day	Topics	Instructor	Hands-on Exercises	Deadlines	CLOs
Week 1 17-21/7	Sun	Introduction to the course & The dynamic of disease transmission	All			1
	Mon	Outbreak investigation	Dr. Moawia			1,2
	Tue	Pandemics: history, general principles, and preventive measures.	Dr. Batool Eldos			2
	Wed	Measures of disease occurrence I : Mortality rates & birth measures, adjusting rates technique	Dr. Moawia			1
	Thu	Measures of disease occurrence II : Incidence & Prevalence & disability rate,	Dr. Moawia			1
Week 2 24-28/7	Sun	Surveillance	Dr. Moawia			1,6
	Mon	Prevention and screening	Dr. Ghalia			1,12
	Tue	An Overview of academic writing/scholarly products: articles, posters, conferences.	Dr. Reema	Journal article task		4
	Wed	Medicine of elderly: definition, common problems, type of care, and research in Jordan.	Dr. Hadeel Heilat	Distribute questionnaire for data collection		1,12
	Thu	How to write a research proposal and tips for scientific writing.	Dr. Reema	-YU Research proposal form -Using referencing software (Mendeley)		4,15
Week 3 31/7-4/8	Sun	Find and formulate research question & responsible conduct of research	Dr. Reema	-Conduct a literature search -Getting Started with IRB Review		3,4
	Mon	Association vs Causation	Dr. Ola	Evaluate association work sheet using Hills criteria's		10,13
	Tue	Threats of study validity: confounding, bias, & interaction	Dr. Ola	Counterfactual model of		11,13



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Week	Day	Topics	Instructor	Hands-on Exercises	Deadlines	CLOs
				association worksheet		
	Wed	Literature review narrative & scoping review paper	Dr. Moawia			4
	Thu	Ecological, Cross sectional & associated measure of risk (OR) and biases	Dr. Reema	-Paper critique -Individual Assignment		1,4,5,13
Wed. 9/8		Midterm Exam				
Week 4 10-11/8	Wed	Cohort & associated measure of risk (RR) and biases	Dr. Reema	-Paper critique -Individual Assignment		1,4,5,13
	Thu	Case-control, nested-case-control study design & matching	Dr. Reema	-Paper critique -Individual Assignment		1,4,5,13
Week 5 14-18/8	Sun	Clinical trials study design random allocation, masking, inferring from study findings (NNT, NNH, intention to treat analysis, as treated analysis, do-no-harm)	Dr. Reema	-Paper critique -Individual Assignment	Submit literature review matrix & references	1,4,5,13
	Mon	Qualitative study design and thematic analysis	Dr. Moawia			1,4,5,13
	Tue	Systematic Review - PRISMA guidelines	Dr. Reema	-Paper critique -Individual Assignment		1,4,5,13
	Wed	Evidence based medicine: Hierarchy of evidence & guideline development	Dr. Ola	Discuss U.S. preventive services task force standards for guideline development		12,13
	Thu	Translational Research: Health services & Patient centered outcome research (PCOR)	Dr. Ola	Guest Speaker: Big data in Healthcare and its' role in precision medicine		12
Week 6 21-25/8	Sun	Data collection tool development & Sampling methods, and Quality Assurance	Dr. Ola	Evaluate a freely available survey	Submit Your collected data	6,7
	Mon	Preparing data for analysis & Descriptive data analysis and visua lization	Dr. Ola	SPSS task completion		6,7,8,9



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Week	Day	Topics	Instructor	Hands-on Exercises	Deadlines	CLOs
	Tue	Comparing two groups : Bivariate analysis & Correlation	Dr. Ola	SPSS task completion		7,9
	Wed	Inferential statistics: Simple linear regression & Multiple linear regression	Dr. Ola	SPSS task completion		7,9
	Thu	Communicating and present your results	Dr. Moawia	Design Scientific Poster	Submit final proposal draft**.	14,16
Week 7 28-1/9	Sun					
	Mon					
	Tue	Poster & video presentation day	All			14,15,16
	Wed					
	Thu					
Wed. 5/9		Final Exam				

*Instruction method is as follows: Face to face lectures, Lab work, & large group discussion.

**Literature review, hypothesis and specific aims, subjects (Inclusion and Exclusion criteria), setting, Consent form, and data collection method & tool.

Main Textbook and References	
Main Textbook	-Jacobsen, Kathryn H. Introduction to health research methods: A practical guide . Jones & Bartlett Publishers, 2020.
Other References	- Gordis, Leon. Epidemiology E-Book . Elsevier Health Sciences, 2013.
	- Browner, Warren S., Thomas B. Newman, Steven R. Cummings, and Deborah G. Grady. Designing clinical research . Lippincott Williams & Wilkins, 2022.
	- Extra readings and articles will be posted on e-learning.



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Evaluation & Grading*				
Assessment Type	Date and Time	Assessment Method	Mark (%)	CLOs
Midterm Exam	9/8	Computer based MCQs exam	30%	
Hands-on in class Activities**	Paper critique	Individual based evaluation (task completion)	20%	
	SPSS tasks			
	Individual assignments			
	Data collection			
Project I: Proposal draft***	Research question	Group based project evaluation with corrective feedback	10%	
	Literature review & references			
	Data collection tool			
	Submit your study design (hypothesis and specific aims, participants, setting, sampling method, study design, consent form for IRB)			
	Submit final proposal draft			Group based project evaluation
Project II:	Scientific poster***	Group based project evaluation	5%	
	Video presentation	Group based project evaluation	5%	
Final Exam	5/9	Computer based MCQs exam	30%	

*Students will be evaluated through a combination of class participation, class hands-on activities, a major project (proposal), and two exams.