

Mater of Science (Public Health Infectious Diseases and Epidemiology)
Faculty of Public Health, Mahidol University

Information on Courses	
1	Course Name: Principles of Epidemiology
2	Course code: PHEP 602
3	Name(s) of Course Director: Assoc. Prof. Dr. Wisit Chaveepojnkamjorn
4	Rational For the inclusion of the course in the program: This is the core course for competency of the Master of Science Program in Public Health Infectious Diseases and Epidemiology (Regular and Special Program)
5	Semester/year Offered: 1/1 Minimum number of students: 5
6	Credit value: 3 (2-2-5)
7	Pre-requisite (if any) : None
8	Objective (s) of Course: This course aims to introduce 1. concept of epidemiology 2. epidemiological indicators to assess health status and identify determinants of health 3. epidemiological designs used in public health 4. epidemiological practice in public health such as surveillance, outbreak investigation 5. how to appraise research articles
9	Course learning outcome (CLO): Upon completion of the course, students are able to 1. explain epidemiology concepts and health problems 2. Calculation and diseases distribution and associated factors 3. explain the advantage and limitation of study design 4. explain error and bias of study 5. apply epidemiology concept and study design to solve public health problems
10.	Transferable skill Problem solving skill, logical thinking skill, analytic thinking, communication, teamwork, leadership skill
11.	Teaching and learning assessment strategy: online evaluation by students and course verification by program committee
12.	Course description; This is a require course introduce and discuss following contents: The study of natural history of diseases, health status, factors related to disease occurrence and population health dynamics. Principles of epidemiology and epidemiological methods are used to describe patterns of disease occurrence and to

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	identify factors influencing the distribution of such diseases. Experimental study, investigation of epidemic, prevention and control of disease, and disease surveillance are discussed.					
13.	Mode of teaching delivery: Lecture, group discussion and self study					
14.	Evaluation methods and types: Oral and written presentation, midterm and final examination					
15. Content outline of the course/module and Student Learning Time (SLT) per topic						
Topic	CLO	Face to Face			SL	TLT
		L	P	O		
Introduction to epidemiology	1,2,3	2	1	1	2	6
Measurement in epidemiology	2,3,4	2	1	1	2	6
Standardization	2,3	2	1	1	2	6
Introduction to study design in epidemiology	2,3	2	1	1	2	6
Descriptive study	2,4	2	1	1	2	6
Cross sectional study	2,3,4	2	1	1	2	6
Cohort study	2,3,4	2	1	1	2	6
Case-control study	2,3,4	2	1	1	2	6
Experimental study & Ethics consideration	1,2,3,4	2	1	1	2	6
Bias, confounding and effect modification	2,3,4	2	1	1	2	6
Surveillance + International Health regulation	1,2,4	2	1	1	2	6
Investigation of epidemics	1,2,3,4	2	1	1	2	6
Screening test	2,4	2	1	1	2	6
Community diagnosis	1,2,3,4	2	1	1	2	6
Critical appraisal of published paper	1,2,3,4	2	1	1	2	6
Causal Inference and Web of causation	1,2,3	2	1	1	2	6
Paper presentation 1-4	1,2,3,4,5	0	2	2	2	6
Examination	1,2,3,4,5					

CLO = course learning outcome

L = Learning

P = Practical

O = others (group discussion)

SL = Self-learning

TLT = Total learning time