Subject Description Form

Subject Code	HTI5601
Subject Title	Epidemiology
Credit Value	3
Level	5
Responsible staff & Department/School	Prof. Gilman SIU (HTI), Dr. Gloria LI (HTI), Dr. Bear XIONG
Pre-requisite / Co-requisite/ Exclusion	Knowledge of research methods and data analysis is strongly recommended
Objectives	To discuss the practical use of epidemiology with emphasis on the methods used in the collection and analysis of epidemiological data. To identify and discuss the usefulness of sources and use of epidemiological data To critically analyse epidemiological studies. To examine the use of epidemiological data in the planning and evaluation of health care activities.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: a. demonstrate understanding of the basic concepts of epidemiology b. identify sources and use epidemiological data and information. c. critically review epidemiological studies to assess their usefulness for research and health care planning. d. demonstrate understanding of the epidemiological considerations for the planning and evaluation of health activities, services or programmes.
Subject Synopsis/ Indicative Syllabus	1. Concepts of epidemiology: development of epidemiological methods, causality, validity. 2. Sources of epidemiological information: demography, mortality and morbidity statistic, disease mapping, prevalence and incidence. 3. Infectious disease epidemics: investigation and management; application of epidemiological methods in the control of disease in Hong Kong 4. Epidemiological methods: descriptive studies, cohort studies, case control studies, intervention studies. 5. Health planning and evaluation. 6. Selective examples of use of epidemiological techniques in the outbreak investigation.
Teaching/Learning Methodology	Lectures, Tutorials, Seminars Lectures are used to introduce the concepts of epidemiology and provide a solid basis for discussion of individual studies which are used in tutorials. Seminars involve demonstrations of the use of epidemiological studies in various contexts and discussion of the adequacy of published studies to answer research questions.

Assessment Methods in Alignment with Intended Learning Outcomes

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed					
		a	b	c	d		
1. Mini-review presentations	30 %	√	√	√	√		
2. Written report	40 %	√	√	√	√		
3. Test	30 %	√			√		
Total	100 %						

Students are required to identify suitable materials for their presentations which require them to critically evaluate the content of the epidemiological studies and to determine their usefulness in the context of local healthcare needs.

The test covers the concepts of epidemiology as well as interpretation of epidemiological data.

Student Study Effort Expected

Class contact:	
▪ Lectures	24 Hrs.
▪ Tutorials	6 Hrs.
▪ Seminars	9 Hrs.
Other student study effort:	
▪ Assignment preparation	30 Hrs.
▪ Self-study	30 Hrs.
Total student study effort	99 Hrs.

Reading List and References

Szklo, M. (2019) Epidemiology : beyond the basics. (4th Ed). Sudbury Massachusetts: Jones and Bartlett

Fletcher, R.H, Fletcher, S. (2014). Clinical Epidemiology - the essentials. (5th Ed) Baltimore: Williams & Wilkins.

Giesecke, Johan. (2017) 3rd Ed Modern infectious disease epidemiology. London : Arnold

Jekel, DL, Elmore, JG, Katz, DL. (2020) Jekel's Epidemiology. Biostatistics and Preventive Medicine. 5th Ed Philadelphia: Saunders.

Wang, Jung-Der (2002) Basic principles and practical applications in epidemiological research . River Edge, N.J.: World Scientific