Course Title/Code: Introduction to Public Health Genomics (MMPH6173)

School of Public Health **Department:**

Objective: 1. To introduce the emerging interdisciplinary subject area of public

health genomics

2. To explain the inter-relationship between disease, genetics, and the environment, so as to foster an understanding on the current and potential impact of genomic science and technology on the practice of

clinical medicine and public health practice

3. To highlight potential ethical, legal and social Implications (ELSI) of genomic science and technology and the various policy approach for

its control and regulation

Content: Topics include:

An overview of Public Health Genomics

Genetic testing - concepts a Genetics and health services in HK nd

development

Genetics and health services in HK Genetic testing – problems and control

Statistical & epidemiological techniques for study of genetics

Psycho-social aspect of genetic screening

Practice of Cancer genetics

Ethical, legal, and policy implications of genetic

Future directions and challenges of public health genomics

Presentation of group projects

Learning Outcomes: 1. Describe the concept of public health genomics

> 2. Demonstrate an understanding on the inter-relationship between disease, genetics, and the environment on specific public health problems

3. Recognize the importance and potential implication of genomic development on clinical and public health practice

4. Identify potential ethical, legal and social Implications (ELSI) of genomic advancement and technology when applied to different specific public health problems

5. Describe various policy approach for the control and regulation of

genomic related health care practice

Prerequisite: None

Duration: 3 hours/week; 30 contact hours

Continuous assessment/

Written tasks: 50% **Examination ratio:** Participation: 30%

Group presentation: 20%

Remarks: Also offered to RPg from other Faculties at HKU