SPECIALISATION: EPIDEMIOLOGY AND QUANTITATIVE METHODS

COMPETENCIES

(a) Demonstrate a well-developed understanding of the role of epidemiological methodologies in public health research

(b) Be able to critically evaluate epidemiological investigations including the research question, study design, statistical analyses, results and interpretation of observational and experimental research studies relevant to public health research and practice.

(c) Formulate meaningful public health research questions and develop an appropriate study protocol for grant applications.

(d) Be familiar with methods of data collection and management of data in epidemiologic studies.

(e) Apply appropriate biostatistics methods, using software packages (e.g., STATA or R) to perform data analysis with interpretation and application of findings.

SPECIALISATION CORE COURSES (12 UNITS)

1. SPH5101 Advanced Quantitative Methods I **OR** SPH6002 Advanced Quantitative Methods II

2. SPH5103 Collection, Management and Analysis of Quantitative Data

3. SPH5203 Advanced Epidemiology I **OR** SPH6001 Advanced Epidemiology II

SPECIALISATION ELECTIVE COURSES (8 UNITS)

- SPH5102 Design, Conduct and Analysis of Clinical Trials

- SPH5104 Analytics for Better Health

- SPH5201 Control of Communicable Diseases

- SPH5202 Control of Non-Communicable Diseases

- SPH5205 Urban Outbreak Management

- SPH6004 Advanced Statistical Learning

- SPH5405 Introduction to Health Services Research*

- SPH5407 Programme Evaluation*

- SPH5408 Public Health and Aging*

Not applicable to students admitted in AY2023/2024 and onwards

SPH5005 PRACTICUM REQUIREMENTS

The SPH5005 Practicum should be on an epidemiological study focused on an exposure, condition or disease of interest to students. Students could conduct primary research; collecting data to answer their research question or utilise secondary data (faculty datasets, school cohort study datasets, public data) to perform data-analysis and interpretation. Other projects could include a systematic review, programme evaluation, or a disease modelling study.