



MS in Epidemiology

- Identify public health core functions, principles, values, and the role of its four disciplines in addressing contemporary population health issues (refers to the 12 foundational learning objectives on public health required by CEPH)
- Discuss the extent, distribution and determinants of common and emerging communicable and non-communicable diseases, and mental health disorders of local, regional, and global importance
- Discuss prevention and control strategies/programs for common and emerging communicable and non-communicable diseases and mental health disorders
- Apply appropriate study designs and develop protocols for observational and experimental epidemiological studies
- Apply inferential statistics and advanced statistical approaches such as regression modelling to analyze complex health related data
- Interpret and communicate statistical findings in oral and written format
- Review, synthesize and communicate epidemiological findings in oral and written format
- Appraise the quality of epidemiological evidence by evaluating studies for bias and other sources of systematic errors
- Develop a hypothesis driven epidemiological study culminating in a defensible written document equivalent to one publishable manuscript and oral presentation
- Apply ethical principles in all stages of epidemiological research
- Design epidemiological studies to investigate public health research questions
- Apply epidemiological methods to the breadth of settings and situations in public health practice
- Interpret results of data analysis for public health research policy or practice
- Analyze health related data using advanced statistical techniques and software
- Demonstrate ability to write software codes in order to manage and analyze health data through the use of multiple statistical software