## POH 103: NATURE AND OCCURRENCE OF PANDEMICS

**Module Overview**

Definition of terms used in pandemics, epidemiologic triad, host factors, agent factors, environmental factors, the interrelationship between host, agent and environment, factors influencing disease transmission, epidemiological concepts, levels of disease, zoonosis, epizootic and enzootic chain of infection, factors influencing disease transmission, routes of transmission, exposure to infectious agents, transmission, chain of infection and agents, infectious organisms and agents, transmission and modes of disease transmission, types of reservoirs, vectors, environmental factors, immunity, principles of control.

**Mode of Delivery**

This includes lectures: problem-based learning using interactive tutorials, small group discussions and written assignments, plenary presentations, case studies, experiential learning through independent/reflective study and field visits and placements and online peer discussions using video clips and conferencing, case study and case series, tabletop exercises, field work. Learners will join epidemiologists in the field undertake outbreak investigation and control.

**Instructional Materials**

*Materials:* Lecture notes and slides, video clips, handouts, case studies, reference materials (t, journals, and policy document-guidelines), field placements and field visits to research institutions.

*Equipment:* LCD projectors, laptops, white board, markers and flipcharts, LCD, printers, internet access for e-resources, PDAs, mobile phones, tools for outbreak investigation.

**Core Reference Materials**

1. Dicker, R. C., Coronado, F., Koo, D., & Parrish, R. G. (2006). Principles of epidemiology in public health practice; an introduction to applied epidemiology and biostatistics.
2. Centers for Disease Control and Prevention (CDC). (2006). Principles of Epidemiology in Public Health Practice; An Introduction to Applied Epidemiology and Biostatistics.
3. Gregg, M. B. (2002). Communicating epidemiologic findings. *Field Epidemiology*, 183.

**Recommended Reference Materials**

1. Bonita, R., Beaglehole, R., & Kjellström, T. (2006). *Basic epidemiology*. World Health Organization.
2. Rothman, K. J. (2012). *Epidemiology: an introduction*. Oxford university press.
3. Aschengrau, A., & Seage, G. R. (2013). *Essentials of epidemiology in public health*. Jones & Bartlett Publishers.