**EHS 1104 PRINCIPLES OF EPIDEMIOLOGY (3 CU)**

**Course Description:** The course deals with knowledge and concepts of epidemiology and its application in procedures for the assessment, control and prevention of environmental health problems.

**Course Objectives**

By the end of this course, the student should be able to:

1. Explain the concept and application of epidemiology
2. Describe the epidemiological approaches used in the assessment and evaluation of risks to health from environmental hazards.
3. Explain the principles of diseases association and causation
4. Describe the common transmission ways of frequent diseases in the East African countries
5. Demonstrate the ability to keep epidemiological data, analyze it and communicate the results to relevant users.

**Detailed Course Outline**

* Concepts and applications of epidemiology
* Measures of disease occurrences
* Principles of disease causation and association
* Application of common epidemiological packages e.g. Epi-Info
* Introduction to epidemiological research: study design, errors in epidemiological studies, and interpretation of epidemiological studies
* Vital statistics and surveillance
* Occupational and environmental health epidemiology

# Mode of delivery:

* Lectures, Tutorials and seminars

**Assessment**

- Continuous assessment **40%**.

- End of semester exam: MCQ’s, short answer and long assay questions **60%**.

**Suggested Reading List**

1. Lecture handouts and additional materials on reserve at the MUSPH Resource Centre.

# 2. Talbot, E. Craun, G. (Ed). (1995). *An Introduction to Environmental Epidemiology*. Lewis Publishers

3. Principles of Epidemiology by Leon Gordis

4. Epidemiology in Medicine by Hennekens

5. Foundations of Epidemiology by Linnenfield

6. Raj Bhopal . *Concepts of Epidemiology: An integrated introduction to the ideas, theories, principles and methods of epidemiology*. Oxford University Press, 2002.

7. Penny Webb, Christopher Bain, Sandi Pirozzo. *Essential Epidemiology. An Introduction for Students and Health Professionals*. Cambridge University Press, 2005.

**Course Facilitators**

*Prof. Joseph Konde-Lule MBChB, DPH, MSc*

*Prof. Fred Wabwire-Mangen MBChB, DTM&H, MPH, PhD*

*Dr. David Ndungutse MBChB, DPH, MSc*

*Dr. David Guwatudde B Stat, MSc, PhD*

*Mr. David Odaka Mukanga B Pharm, MPH*

*Dr. Sheba Nakacubo Giita BDS, MPH*

*Ms Barbara Kirunda BSc FST, MPH*

*Dr. Roy Mayega MBChB, MPH*