



MWANZA RESEARCH METHODS COURSE 2019

Introduction: This is a two weeks research methods course suitable for health researchers, social scientists and students undertaking professional training (MSc, MMed, MPH, and PhD). Facilitators for this course are highly experienced researchers from the Tanzania National Institute for Medical Research (NIMR) Mwanza Centre, Mwanza Intervention Trials Unit (MITU) and the London School of Hygiene & Tropical Medicine (LSHTM). The course consists of eight introductory modules on epidemiology, medical statistics, bioethics, field methods, laboratory methods and evaluation, qualitative research methods, clinical trials and scientific critical reading and referencing.

The Course Objectives are:

1. To introduce the main methods used in health research
2. To develop expertise in the use of research methods introduced in the course
3. To enable participants to implement their future research projects using suitable research methods

Venue: National Institute for Medical Research, Mwanza Centre, Isamilo area, Mwanza city

Dates: Monday 24th February to Friday 07th March 2020.

Course Details: Below is an outline of main topics which will be covered in each module:-

1. Epidemiology
 - a. Introduction to research methods
 - b. Measuring of disease occurrence
 - c. Measure of effects and association
 - d. Epidemiological study designs
 - e. Random errors, bias and confounding
 - f. Addressing confounding in the analysis
2. Statistics
 - a. Introduction to biostatistics
 - b. Exploration of data
 - c. Analysis of continuous variables
 - d. Introduction to linear regression
 - e. Analysis of binary outcomes
 - f. Introduction to logistic regression
 - g. Sample size determination
3. Field methods
 - a. Questionnaire design
 - b. Field survey methods
 - c. Interviewing skills
 - d. Survey, timeline and budgeting

4. Laboratory methods
 - a. Introduction and evaluating performance of diagnostic tests
 - b. Planning project laboratory testing
 - c. Good Clinical Laboratory Practice (GCLP)
 - d. Quality management system
5. Qualitative research
 - a. Overview of qualitative research
 - b. Common data collection methods
 - c. Key steps in qualitative data analysis
6. The clinical trials
 - a. Introduction to randomized clinical trials
 - b. Analysis of clinical trial data
 - c. Cluster randomized trials
 - d. Reporting of clinical trial results
 - e. Principles of Good Clinical Practice (GCP)
7. Bio-ethics
 - a. Ethical issues in health research
8. Critical Reading and referencing
 - a. Introduction to critical reading for qualitative and quantitative papers
 - b. Searching the internet for referencing

Mode of teaching: Expert researchers will share their experiences with participants and teach the latest developments in research techniques. This will be done in the form of:

1. Lecture sessions
2. Practical sessions to enhance the understanding of topics and to build skills in key techniques
3. Group activities to facilitate participant interaction.

Mode of Application: If you are interested in this course, please submit your application letter outlining your current work/engagement(s) and how this course will benefit your work and career. Include with your application a CV and a letter of recommendation from your line manager or supervisor (where applicable). This should be submitted to the following address not later than **Friday, 22nd November 2019, 4.00pm** East African Time.

**The Director,
NIMR Mwanza Centre
P.O Box 1462, Mwanza, TANZANIA
e-mail: rmcourse@mitu.or.tz**

Requirements: Applicants should have at least a Masters degree (or equivalent) in a relevant field of study and either working or doing post-graduate studies in health research. Applicants should also be able to pay for their meals, accommodation and transport during the course.

Evaluation

At the end of the course, participant will have to write an examination and those who score above fifty percent will be awarded a certificate of performance. Participants scoring below 50% will be awarded a certificate of attendance.