



MWANZA RESEARCH METHODS COURSE 2021

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 8th March 2021 to Friday 19th March 2021.

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

1. Epidemiology
 - a. Introduction to epidemiological studies
 - 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 simple linear regression
 - e. Analysis of binary outcomes
 - f. Introduction to logistic regression
 - g. Sample size determination
3. Implementation research and field methods
 - a. Introduction to implementation research
 - b. Questionnaire design
 - c. Field survey methods
 - d. Interviewing skills
 - e. 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 qualitative data collection methods
 - c. Key steps in qualitative data analysis

6. 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. Principals of Good Clinical Practice (GCP)
7. Bio-ethics
 - a. Introduction to principles of Bioethics
 - b. Ethics in health research and ethical consideration
8. Proposal writing, critical reading and referencing
 - a. Key steps in preparing a research proposal
 - b. Introduction to critical reading skills
 - c. Searching the internet for referencing

Mode of teaching: Experienced 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, 29th January, 2021, 5.00pm** East African Time.

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

Requirements: Applicants should have at least a master degree (or equivalent) in a relevant field of study and either working or doing post-graduate studies in health research environment.

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.

NOTE: *International applicants who will be selected to attend the course are required to observe all travel guidelines on COVID 19 for their country and the United Republic of Tanzania.*