



# RISK METHODS SCHOOL

10 – 22 SEPTEMBER 2018

ARDHI UNIVERSITY - DAR ES SALAAM

## **Stream Three: Integrated Research Methods in Disaster Risk and Resilience Studies**

**Course II: *Advanced Research Methods for Risk and Resilience Studies***

**Date: 17 – 21 September, 2018**

This is an intensive course to ensure rigour and robustness in the application of research methods and tools used in studying risk and resilience themes. It recognises that the cross-disciplinary nature of disaster risk research often involves the application of mixed methods approaches, including the integration of both quantitative and qualitative methods. The course gives particular attention to survey design, with a focus on questionnaire design and data analysis.

It will also cover inferential statistical methods (including hypothesis testing and significance testing), as well as communicating research findings – with a focus on writing robust and accessible research reports, preparing policy briefs and producing peer-reviewed articles.

This course is highly relevant for postgraduate students and emerging academics who are designing their PhD study methodologies, and who aim for rigour in their research. It is applicable to both social science students as well as physical and engineering science students intending to include a critical social dimension to their risk research.

This course is also useful for development practitioners, more advanced researchers and senior risk managers who are leading disaster risk and resilience, especially in a transdisciplinary and multi or transnational context.

At the completion of the course, participants will be able to:

- Understand approaches to effective and ethical research across disciplines and countries
- Prepare feasible and fundable research proposals
- Understand how to conduct quality research with appropriate methods
- Analyse, present and interpret complex data
- Communicate written and oral research scientifically and effectively



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### **Course content**

- Research approaches and methods (review approaches from Introductory course).
  - Overview of Quantitative research designs
  - Overview of Qualitative research designs
  - Overview of Mixed methods designs
- Survey research design, including advanced methods in survey research
  - Overview, origins and selection of methods
  - Fundamentals of sampling
- Research ethics, Intellectual property and data protection
- Theory and practice of Instrument design and development focusing primarily on questionnaires.
  - Overview of analytical methods in relation to questionnaire data.
  - Data analysis, presentation and interpretation of quantitative data.
- Communicating written and oral research scientifically and effectively

### **Entry prerequisites and requirements**

Admission requirements into these courses varies:

- For post-graduate students, applicants should be currently enrolled in a doctorate (PhD) programme. Special exception will be made for a limited number of a Masters level graduates, or individuals with significant or impressive field experience.
- For disaster risk management, urban planning, engineering, architecture or development practitioners, applicants should have at least a Master's level degree and/or demonstrable skill in previous research related to these themes.
- Participants should be fluent in reading and speaking English.

### **Equipment implications**

While Ardhi will provide access to GIS computer laboratory facilities, participants are also encouraged to bring their own laptops or other equipment. Please check the Administrator Rights on your equipment, to ensure that settings can be adjusted if necessary.



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### **Course presenters**

#### ***Professor Sam Ayonghe***

Born in Cameroon, Professor Ayonghe obtained a PhD in Geophysics from the Imperial College, University of London in 1998, taught in the University of Yaoundé, from 1990, in the University of Buea from 1993 to present, and was promoted to full Professor in 2008. He has published over 60 articles on volcanology, landslides, climate change, hydrogeology and seismology, supervised six PhDs and over 35 MSc theses. Professor Ayonghe has been the Dean of the Faculty of Science at the University of Buea since 2016, is President of the National Scientific Committee on Monitoring Eruptions of Mt Cameroon, Fellow of the Cameroon Academy of Sciences and Coordinator of the USAID Periperi U Grant UBuea Consortium.

#### ***Professor Sarah Howie***

Sarah Howie is the Director of the Africa Centre for Scholarship and Professor at the University of Stellenbosch, South Africa. She is the Deputy Chair of the board of the South African Qualifications Authority; member of the Assessment and Standards Committee at Umalusi and member of the Universities South Africa Admissions Committee. Internationally, she was a member of the UNESCO-Brookings Institute international Learning Metrics Task Force for Post-primary (in preparation for Education for All 2015). She is also a member of four international technical research committees associated with design and development of international large-scale assessments of the International Association for Evaluation of Educational Achievement (IEA) and the Organisation for Economic Cooperation Development (OECD). She is a member of a number of Editorial Boards of international Journals including those in the Taylor and Francis and Elsevier publishing houses.

#### ***Assoc. Professor Tesfahun Kasie***

Tesfahun Kasie is a PhD graduate and associate professor at the Institute of Disaster Risk Management & Food Security Studies at Bahir Dar University, Ethiopia. He is currently teaching disaster risk and food security related courses for postgraduate students. His research interests include food security and livelihood resilience in risky environments. Tesfahun has served in several positions, including Chair of Disaster and Development related course systems, and Head of the Department of Disaster Risk Management & Sustainable Development at Bahir Dar University.