7 Annexures

7.1 Annexure 1A: University wide seminar talk on education

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

The University Teaching & Learning Office
And
The School of Education

Cordially invites you to a Seminar

on

DO MATHEMATICAL MODELS HAVE THE POTENTIAL TO SOLVE SYSTEMIC PROBLEMS IN EDUCATION?

By

Professor Simon Mukwembi
School of Mathematics, Statistics & Computer Science &
UKZN's Distinguished Teacher for 2013

DATE: Friday, 27 June 2014
TIME: 16h00 – 18h00
VENUE: LT 6, Main Tutorial Building, Edgewood Campus, UKZN
CHAIR: Dr Rubby Dhunpath (Director: Teaching & Learning)

RSVP Essential
To: Mrs Silindile Mchunu
Subject: Prof Mukwembi Seminar
Email: utlo@ukzn.ac.za
Tel: (031) 260 3002

INSPIRING GREATNESS

Professor Simon Mukwembi
School of Mathematics, Statistics & Computer Science
And
UKZN's Distinguished Teacher for 2013

Professor Simon Mukwembi, a University of KwaZulu-Natal 2013 Distinguished Teacher awardee, has over 14 years of experience in teaching Mathematics at various Universities across Africa. He is an NRF rated researcher, who has published over 45 articles solving old and new problems in his field of study – graph theory and its applications. Moreover, he is a Managing Editor of a leading international, DoE accredited journal, Utilitas Mathematica, where he uses his expertise to sieve research work, accepting only really good research findings. In addition, Professor Mukwembi has a strong record of community engagement, including several projects aimed at consolidating High School Teachers' content knowledge in Mathematics. His administrative activities include being part of several university committees and serving as an Academic Leader.

Do Mathematical Models have the Potential to Solve Systemic Problems in Education?

The most urgent systemic problem in the education of any country today, in the absence of a complete solution, is to devise effective strategies to minimise the spread of these problems till they reach endemic proportions. Educators, policy makers and researchers seek answers to a legion of questions pertaining to critical aspects of educational challenges and their spread often with minimal success.

In this seminar, we explore some of the existing approaches to education and give a sketch of how these approaches can be used to provide answers to challenges that may exist in a country's education system. Mathematical models have been used in other complex real-world problems to make predictions which help understand the dynamics of change and thereby assist researchers and policy makers to prepare for, detect, and respond to potential threats. In this call for action, we also present and discuss how some new mathematical models can be used in the decision making process, both in the classroom and outside of the classroom, to reasonably predict consequences of choosing certain alternative strategies.