The University Teaching & Learning Office

Cordially invites you to a Seminar

with

Professor Michael J Savage,
School of Agricultural, Earth & Environmental Sciences,
University of KwaZulu-Natal

on

Using Real-time/Live Data to Enhance Teaching and Learning in Higher Education

DATE: Wednesday, 19 February 2014

TIME: 14h00 – 16h00

VENUE: Council Chambers, Main Campus,
Pietermaritzburg Campus

RSVP Essential by Monday, 17 February 2014
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Using Real-time/Live Data to Enhance Teaching and Learning in Higher Education

Professor Michael J Savage
School of Agricultural, Earth & Environmental Sciences, UKZN

After a long and productive research career in agrometeorology and environmental biophysics, Mike Savage started exploring ways of making lecturing content more alive, appealing and comprehensible to students, particularly those whose first language was not English. Previous attempts at bringing the reality of the physical environment to the lecture room/laboratory in real-time failed, due to a lack of technology. In 2011 Mike developed an open web-based teaching, learning and research system for near real-time agrometeorological and environmental applications, data visualisation, visual literacy and to serve as a data resource for various disciplines (http://agromet.ukzn.ac.za:5355).

The system has proved to be a useful and contemporary resource for teaching and learning for undergraduate and honours students and has the potential to become a very useful research tool. Through its emphasis of visual literacy, the system enabled deeper understanding by students of biophysical agro-environmental concepts- irrespective of language. His research has shown that for the future, there is an urgent need to create a list of isiZulu technical terms specific to Agrometeorology and allied disciplines.

While the system has been developed for the agro-environmental sciences, the work could be used as a case study to extrapolate broad principles that may be applied to other disciplines. The system is now used regularly by undergraduates and postgraduates with the potential for use in junior and high schools. The system has also provided an avenue for research in a number of areas not previously pursued.

In this seminar, Mike explores the use of a real-time/live data system to enhance teaching and learning in higher education. He explores, to some extent, the hypothesis, pertinent to South African students and based on personal experience, that use of graphics and data in teaching and learning may transcend language differences between students and between student and staff, more than does written text and other resources.