



# ACCESS/CREEM Workshop: Introduction to Statistical Modelling – a data-based approach

9<sup>th</sup> -12<sup>th</sup> July 2013 in Kenya (University of Nairobi)

The deadline for application is 20th of June, 2013

“Are you a researcher who uses basic and/or advanced statistical methods in your work? Do you want to learn how to apply these techniques more appropriately or accurately? Do you want to brush up on your stats and statistical modelling techniques? – Then this is a course for you!

The Applied Centre for Climate and Earth System Science (ACCESS) in collaboration with the Centre for Research into Ecological and Environmental Modelling (CREEM) is organizing a 4 day Statistical Modelling Workshop at the University of Nairobi, Kenya from the 9th - 12th of July, 2013.

The 4 day course is taught using methods that can be widely applied but is illustrated using a relevant case study. This course starts at a very basic level and covers the following:

- Exploratory data analysis: graphical illustrations (e.g. histograms, boxplots etc)
- Summary statistics, the basics of parameter estimation (e.g. means, medians, variances)
- Confidence Intervals, Hypothesis Testing (including *t*-tests and ANOVAs)
- Models for continuous response data:
  - Linear regression models: model specification, fitting, assessment and interpretation (with a particular focus on interpretation)
  - Generalized Least Squares models will also be covered to cope with common linear model assumption violations (with a particular focus on how conclusions change when you do so)
- Models for binary responses (e.g. presence/absence data), proportions and count data:
  - Generalized Linear Models: Model specification, fitting, diagnostics and interpretation.
  - Models which incorporate over dispersion will also be covered.
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The R software package will be used for workshop-based practicals but all code will be provided and no prior experience with the R package is assumed.

Registration for the course is ksh5000 (\$ 60 USD) payable to:

Account Name: UON-CBPS-IGU  
Account Number: 073-2255222  
Bank: Barclays Bank of Kenya  
Branch: Westlands Branch  
Swift code: BARCKENX

Please apply online through this link: <http://tinyurl.com/ouqamvh>

**Note: Only shortlisted candidates would be contacted**

Those with laptops are advised to download both the free R package (<http://cran.r-project.org/>) and R-Studio (<http://www.rstudio.com/ide/download/>) before arrival but all files required will be provided on a data stick.

For more information, please contact:

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ACCESS is a South African Center of Excellence supported by the Department of Science and Technology and National Research Foundation ..... ([www.access.ac.za](http://www.access.ac.za)).

CREEM is an inter-disciplinary research centre at the University of St Andrews, Scotland, UK; its aim is to link researchers from the Schools of Mathematics and Statistics, Biology and Geography and Geosciences. Its remit is to develop and apply advanced mathematical and statistical methods to practical problems in biology, ecology and geography (<http://creem2.st-andrews.ac.uk/>)

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