

# Introductory short course on statistics and data analysis for research purposes using R

29 - 31 January 2018

Potchefstroom

The subject group Statistics of the North-West University is presenting a short course to familiarise delegates with the open-source statistical software R. This short course aims to equip participants with the skills necessary to understand, analyse and interpret typical statistical output whilst learning to work with R. R is increasingly used among researchers, a fact attested to in an [article of the R programming language](#) in the prestigious journal Nature.

R software skills	Statistical techniques
<ul style="list-style-type: none"> <li>• R installation, packages and use of help facilities</li> <li>• Import data from txt, csv and Excel files</li> <li>• Identification and use of data types</li> <li>• Creation of data variables</li> <li>• Indexing and manipulating data variables</li> <li>• Basic data operations using simple mathematical and statistical operators</li> <li>• Elementary data analysis using built-in functions</li> </ul>	<ul style="list-style-type: none"> <li>• Exploratory data analysis, including summary statistics and graphical presentations of data</li> <li>• Categorical data analysis (Pearson's chi-square test)</li> <li>• Comparing one and two means (t-tests)</li> <li>• Comparing several means (ANOVA)</li> <li>• Correlation and simple linear regression analysis</li> <li>• Multiple linear regression analysis with advanced topics including the creation of dummy variables and diagnosing influential cases and multicollinearity, etc.</li> </ul>

### Course fee

R 3 200 per NWU student/ NWU personnel for all three days.  
R 4 000 per non-NWU affiliated delegate for all three days.  
Course material, tea and lunch included.

### Registration closing date

12 January 2018

### Certificate awarded

A certificate of attendance from the North-West University will be awarded to all delegates who have completed the course.

To register for the short course, please complete the registration form:

<https://goo.gl/forms/2Ab0lpwR7oCAAiT2>

### Enquires:

#### Short course content

Prof Leonard Santana  
Dr WD Schutte

+27(0) 18 299 4045  
+27(0) 18 299 2556

[leonard.santana@nwu.ac.za](mailto:leonard.santana@nwu.ac.za)  
[wd.schutte@nwu.ac.za](mailto:wd.schutte@nwu.ac.za)

#### Payment of course fee

Monique van Deventer

+27(0) 18 285 2447

[monique.vandeventer@nwu.ac.za](mailto:monique.vandeventer@nwu.ac.za)