

## **NILS Research Forum - Training course in R statistical software**

**Date:** Monday 7<sup>th</sup> to Wednesday 9<sup>th</sup> August 2017 (inclusive)

**Location:** Room 0G/010, Main Site Tower, Queen's University Belfast, BT7 1NN

### **Details**

The NILS Research Forum and Q-Step Centre in the School of Social Sciences, Education and Social Work at Queen's University Belfast have organised a three-day training course in R statistical software. The training will be delivered by Dr Colin Gillespie, Senior Lecturer in Statistics at Newcastle University who has been teaching R since 2005 at a variety of levels and co-authored the book 'Efficient R Programming'.

The training is aimed at those who are new to R as it covers key fundamentals and techniques required to prepare your data for statistical analysis; it would be especially useful for those who have experience of using other statistical packages such as Stata, SPSS or SAS and are considering a transition to R. The course also covers graphics and statistical modelling, which may be of interest to more experienced R users. Prior to the three-day course, there will be a one-day introductory workshop on R (date to be confirmed) to provide participants with an overview of R basics that will lead in to the main three-day course.

### **Course content**

#### Day 1 (Monday 7<sup>th</sup> August)

##### Data fundamentals and preparation

- Data types
- Data frames
- Merging
- Reshaping
- Sorting
- Subsetting

#### Day 2 (Tuesday 8<sup>th</sup> August)

##### Graphics with R

- The grammar of graphics
- Mastering the grammar

- Scales, Axes and legends
- Using the R graphics package *ggplot2*

### Day 3 (Wednesday 9<sup>th</sup> August)

#### Statistical modelling with R

- Basic hypothesis testing
- Simple and multiple linear regression
- Logistic regression

Provisional timings for each day:

- 9:00 - Coffee/registration (on Day 1)
- 9:15 - Morning session (including tea/coffee break)
- 12:30 - Lunch (to be provided)
- 13:30 - Afternoon session (including tea/coffee break)
- 16:30 - Finish

Participants are encouraged to attend the introductory workshop plus all three days of the course and are advised that Day 1 is an essential requirement for the other two days. The course will consist of a mixture of lectures and computer practicals. Participants are required to bring their own laptop with an appropriate version of R installed (details to be provided nearer the time).

### **Registration**

Registration for the three-day R training course is now open to NILS users by emailing Brian Foley at **b.foley@qub.ac.uk**. Note that places are limited and therefore will be allocated on a first-come first-served basis.

In addition, Colin will be delivering a further two R training courses at the same location on Thursday 10<sup>th</sup> and Friday 11<sup>th</sup> August 2017, covering:

- Programming with R
- Building an R Package

Further details of these two courses and registration details are available by scrolling to the August 2017 section at <https://www.jumpingrivers.com/dates> and clicking on the relevant links. Those attending the three-day training course on the Monday-Wednesday are welcome to register for one

or both of the additional two courses; note that a 40% discount is available if you sign up before June 1<sup>st</sup> 2017.