Introduction to Social Data
(SOC1004 / POL1008)

September 2016

1 Practical arrangements

Lectures (Dr A Bessudnov):

- Monday, 9.30 - 11.00am, XFI Henderson Lecture Theatre

There will be no lecture on 3 October; we will have it on 6 October at 5pm (Harrison 004).

Computer lab sessions (Dr E Kolpinskaya):

- Please see your timetables for the schedule of the computer lab sessions.

Office hours:

- Dr A Bessudnov (Amory A341)

  - Monday, 11.30am-12.30pm
  - Thursday, 10.30am-11.30am

- Dr E Kolpinskaya (Amory A339)

  - Thursday, 3-4pm
  - Stats Help Desk, Wednesday 2.30-4.30pm, by appointment only (see `http://www.eventbrite.co.uk/e/stats-help-desk-tickets-27569741840`)

Emails:

- `A.Bessudnov@exeter.ac.uk`

- `E.Kolpinskaya@exeter.ac.uk`

2   Aims of the module

Introduction to Social Data is the first in the sequence of the modules on quantitative data analysis in the social sciences. This is a compulsory module for Q-Step students and it will be followed by Data Analysis in Social Sciences I and II. This module can also be taken as a standalone module on introduction to quantitative research in social sciences

The module serves several purposes. It will introduce you to the idea of quantitative research in social sciences and give examples of some most popular research methods, such as surveys and experiments. You will also learn basic descriptive statitical methods and how to apply them to the analysis of real-life data in the popular statistical programming environment, R. Compared to the previous years, this year the module has been completely redesigned and will emphasize students' indepedent work with data rather than passive listening to the lectures. The module is open to students across all the social sciences and in fact, there is little difference in quantitative research design and data analysis in sociology, criminology and political science.

To get a more in-depth knowledge of quantitative data analysis, you should consider taking POL/SOC1041 (Data Analysis in Social Science) and POL/SOC2077 (Data Analysis in Social Science II) after this introductory module.

3   Software

You will need to install the following free software on your computers.

- R: `https://www.r-project.org`

- R Studio: `https://www.rstudio.com`

The installation process is straightforward, but if you encounter any problems please feel free to contact the IT support or the lecturers during their office hours.

Once you have installed R, you should also install the *swirl* package. This will be explained separately at the computer lab sessions.

You should bring your laptops to the lectures on Monday. This is not compulsory, but will make the learning process for you much easier and more enjoyable. If you do not own and do not intend to buy a laptop please contact the lecturers and we will think of possible solutions.

4 Assessment

The final mark for this module is a weighted average of the marks for a take home exam (50%) and a multiple choice test in the end of the module (50%).

The multiple choice test will be conducted in class in week 12, on 5 December, from 12.30pm to 1.30pm. There will be no Monday lecture in week 12. We will give you a short practice quiz a week before the final test.

For the take home exam, you will be given a statistical assignment at 2pm on 6 December. You will have 48 hours to complete the assignment that you will need to submit online through eBart by 2pm on 8 December. According to the university's policy, you will receive the marks by 13 January. Please do not contact us about the marks and feedback before this date.

Late submissions up to two weeks after the deadline will be capped at 40%. Submissions that are late for more than two weeks will not be accepted.

5 Syllabus plan

Since the module is offered for the first time after re-design the plan is tentative and subject to change.

Lectures

- Introduction. Basics of R

- Causality. Experiments.

- Subsetting in R. Descriptive statistics

- Surveys. Principles of survey research

- Visualizing data in R

At the computer lab sessions you will be working on the R exercises from the textbook.

6 Reading list

Textbook:

- Imai, K. A first course in quantitative social science. To be published by Princeton University Press.

This book has not been published yet, but Dr Imai gave permission to use a free draft version for this course. It can be accessed and downloaded on the ELE page of the module. This course covers chapters 1 to 3.

Reading the textbook is compulsory. Each week you will be given the pages that you must read.

Other books that you may find useful:

- F.J.Fowler, Survey Research Methods, 4th or 5th ed. (Available as an e-book in the library).

- T.Raykov & G.A.Marcoulides, Basic Statistics: An Introduction with R. (Chapters 1 to 3, available as an e-book in the library).

7 Online resources

There is a large number of online resources that may help you learn R. If you have a question you should google it and you will find an answer. You should also consider the following online resources.

- Try R at Code School (`http://tryr.codeschool.com`)

- Resources to help you learn R at UCLA (`http://www.ats.ucla.edu/stat/r/`)