

Monday 11 February 2019

10:00 – 11:30	Introduction; Post-stratification (I)
11:30 – 11:45	Coffee & tea
11:45 – 13:00	Exercises
13:00 – 14:00	Lunch
14:00 – 15:00	Post-stratification (II)
15:00 – 15:15	Coffee & tea
15:15 – 16:30	Exercises & computer workshop

Tuesday 12 February 2019

09:30 – 11:00	Ratio and Regression Estimation (I)
11:00 – 11:15	Coffee & tea
11:15 – 12:30	Ratio and Regression Estimation (II)
12:30 – 13:30	Lunch
13:30 – 15:00	Exercises & computer workshop
15:00 – 15:15	Coffee & tea
15:15 – 16:30	Generalised Regression Estimation (I)

Wednesday 13 February 2019

09:30 – 11:00	Generalised Regression Estimation (II)
11:00 – 11:15	Coffee & tea
11:15 – 12:30	Exercises & computer workshop
12:30 – 13:30	Lunch
13:30 – 15:00	Best Linear Unbiased Prediction (I)
15:00 – 15:15	Coffee & tea
15:15 – 16:30	Exercises & computer workshop

Thursday 14 February 2019

09:30 – 11:00	Best Linear Unbiased Prediction (II)
11:00 – 11:15	Coffee & tea
11:15 – 12:30	Exercises & computer workshop

12:30 – 13:30	Lunch
13:30 – 15:00	Further Topics
15:00 – 15:15	Coffee & tea
15:15 – 16:30	Exercises & computer workshop

Friday 15 February 2019

09:30 – 10:00	Assignment
10:00 – 11:00	Self-study
11:00 – 11:15	Coffee & tea
11:15 – 12:30	Q&A

This timetable is subject to change depending on class progress.

Prerequisites

Please make sure that you familiarise yourself with the basic survey sampling theory and results in *Sampling Techniques* (Cochran, 1977), as well as the relevant algebra and linear algebra skills that are necessary to complete the course. Revisit the MOffStat/MDataGov Introductory Module and STAT6093/STAT6116/STAT6095 if necessary. Some questions for self-preparation will be uploaded to the blackboard, which you should be able to answer. You will struggle otherwise, which can create problems also for the others.

Since computer workshops will be used to enhance your learning outcomes, basic familiarity with R and RStudio will be essential. R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS. RStudio makes R easier to use. It includes an editor, debugging & visualisation tools.

To download R and numerous packages developed for R, please visit <https://www.r-project.org/>

To download RStudio, please visit <https://www.rstudio.com/products/rstudio/download/>

You should be familiar with the basic operations such as:

- open and store a file containing R codes
- how to get online help about R
- simple commands for assignment, routing, loop, etc.
- input/output functions scan, read.table, cat, print, etc.
- graphic functions plot, hist, etc.
- program and execute an R function

There are many free R tutorials available online, such as <https://www.statmethods.net/r-tutorial/index.html>