Statistical Computing
Master Data Science
Winter Semester 2019/20   Prof. Tim Downie

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Information for the Practical R Test — 20. December 2019

If you want to take part in this Test, you **must** let the lecturer know by answering the question in Moodle

- The Test:
  - Consists of three or four questions each with multiple parts.
  - Starts at 12:20 and lasts one hour 15 minutes. Please arrive on time.
  - Is in room A 328 L
  - Is primarily to test your competence in using R, but some statistical questions will be asked.

- You may use your own laptop or the lab computers for this test. You require internet access to Moodle.

- You may bring your course notes and your own material. You may also use the R help pages or make use of internet searches. Be aware that this could cost you time.

- The questions will be handed out on a paper worksheet. You use *R* or *RStudio* to answer the questions and hand write your answers on the worksheet.

- You will also hand in your script file via Moodle.

- It is not allowed for you to send messages of any form or to communicate with others in or outside the room. If you have any queries, you ask the lecturer. Anyone found breaking this rule will get 0 marks.

- A model solution counts 20 marks to your course total. There is no minimum pass mark for the Test. The preliminary and finishing off sections each carry 1 mark.

- On the next page is a list of commands and subjects which is considered to be important for the Test. The list is not exhaustive, other commands might be in the Test.

```
<-
+, - *, /, ^,  %*%
==, <, <= , > , >=
!=, !( ), &, |,
a[1], a[1:2], a[c(2,5)], a[-3], M[2,6], M[1,], M[,c(2,6)]
datf[,"Varname"], datf[1:5,6], datf$Varname[1:4]

c, :, seq, rep
sum, cumsum, length, table, dim, max, min,
matrix, t, names, apply, tapply,
mean, median, quantile, summary, cov, cor,
abs, exp, log, sqrt,   which

plot, hist, barplot, boxplot, stripchart, abline,


runif, dunif, punif, qunif
rnorm,  dnorm, pnorm, qnorm,
rbinom, dbinom, pbinom,qbinom
etc...

set.seed

lm, t.test (in week 11)

load, read.csv, read.csv2, setwd,
```