Aims
On completion, students should know how to:
a) identify problems for which hierarchical linear models are appropriate
b) interpret the results from Bayesian analysis in general and specifically from Markov Chain Monte Carlo (MCMC) Bayesian methods
c) apply Bayesian methods (JAGS software) to analyse such data
d) how Stan software can handle more complex problems

Organization
Students must bring their own laptop (Windows, Mac or Linux are all fine), but do not need to pre-install any software as installation will be part of the workshop.

The workshop will be run in a small conference room. Students are welcome to bring their own datasets for exploration in the second session, but some datasets will be provided for everyone else to choose from.

Assumed knowledge
Students will be assumed to already understand linear models well. I will provide a downloadable textbook in advance for those who need revision. Knowledge of using R is beneficial.

References
JAGS manuals:
https://sourceforge.net/projects/mcmc-jags/files/Manuals/4.x/

JAGS examples:
https://sourceforge.net/projects/mcmc-jags/files/Examples/4.x/

JAGS software:
https://sourceforge.net/projects/mcmc-jags/files/JAGS/4.x/