

NOTES FOR PRACTICAL SESSION 6

Exercises for you to work on — note **suggested order**:

- * **GO** 3.2 (p.62), 4.2 (p.76), 5.1 (p.109), 8.1 (p.166/198); **add7:4** (**GO** 8.7 (p.202); **add6:1**)

Schedule today:

- o **follow-up** from Lecture 6: questions and/or requests for demonstrations (Minitab/Stata),
- o **review** and **demonstrations** of examples from lecture (from slide 6L–17),
- o you work on the exercises on your own (check the solutions!),
 - * **GO 5.1**: use Bonferroni and Holm adjustments instead of Tukey's method.

What you should be able to do after today's session...

- * for a 1-way ANOVA (or a categorical predictor in a larger model): set up a **contrast**, compute estimate, standard error and associated sum of squares, and interpret results,
- * apply **multiple comparison techniques** (Bonferroni, Holm and Scheffé) to pairwise comparisons and contrasts,
- * **analyse factorial** models using all relevant tools of general linear models (e.g., residuals, transformation, contrasts), and as needed assess the statistical significance of and **explore interactions** between two (or more, less commonly) factors.