

Homework 7 - Experimental Design

- Deadline : Midnight Friday Week 11
- Submit by Email
- Subject Line : "MA405 Homework 7 Submission"
(*Dont not write anything else*)

Task1 One Way ANOVA (4 Marks)

- You should each have a data set in the "GreenhouseYields" Folder.
- Is there a significant difference in yield between the treatment groups?
- Include Post-Hoc Tests in your discussion (just pick one and use that - i.e. Tukey's HSD).
- State which groups are similar. Report and comment on the the Confidence Intervals.

Analyse > Compare Means > One Way ANOVA

Task 2 Two Way ANOVA (3 Marks)

- (i) You should each have a data set in the "FuelEfficiency" Folder.
- (ii) The Fixed Factors are: `CarType` and `FuelType`.
- (iii) Your output should comprise two tables: *Between-Subjects Factors* and *Tests of Between-Subjects Effects*.

Analyse > General Linear Model > Univariate

Task 3 Two Way ANOVA with Replicates (3 Marks)

- (i) You should each have a data set in the "Butter" Folder.
- (ii) The Fixed Factors are: **Processes** and **Factories**.
- (iii) Is there any significant difference in "fat content" between the Processes
- (iv) Is there any significant difference in "fat content" between the Factories
- (v) Include Post-Hoc Tests in your discussion. State which groups are similar.
- (vi) State which groups are similar. Report and comment on the the Confidence Intervals

`Analyse > General Linear Model > Univariate`