

SQB7007
Group Project

Instructions:

1. Each group should cover the topic of comparison of several multivariate means, which includes:
 - (a) Comparing mean vectors from two populations (hypothesis test and confidence region/intervals)
 - (b) One-way and two-way Multivariate Analysis of Variance (MANOVA)
 - (c) Simultaneous confidence intervals for treatment effects
 - (d) Testing for equality of covariance matrices
2. Each group is required to identify example(s) of the applications of the topics in Question 1 in the *real world*.
 - write the *real-world* example/data you are going to use on the Spectrum website – examples from books and the lecture notes cannot be used; examples from journals are encouraged.
 - groups cannot use the same example – first come, first serve
 - you must check the forum to ensure your example is different from others
3. Each group is required to:
 - (a) submit a **group** report. The report should contain:
 - (i) Introduction/background on the example/data
 - (ii) Methodology and implementation with corresponding R program codes and output
 - (iii) Analysis of results with discussion, including model/assumptions checking
 - (v) Source of example(s) and references
 - (b) give an **individual** presentation (with individual slides) related to the report. The presentation should contain:
 - (i) Introduction to the example/data
 - (ii) Summary of results with discussion
4. For the presentation
 - use Powerpoint or equivalent tools for the slides
 - each student must submit his/her slides and a video of the presentation (maximum length of video is 5 minutes)
 - slides and face of presenter must be visible in the video
5. Each group will be evaluated on:
 - (a) report: group mark (by lecturer)
 - (b) presentation and slides: individual mark (by lecturer)
 - (c) group work: individual mark (by other group members)
6. Submit a copy of your report, presentation slides and video online, at the Spectrum website, by Monday (Week 12), 9 January 2023, 11pm