Final Project

(Due Date: 10am on Nov 30th, 2026)

- **This project is about the analysis of circular/ cylindrical/ directional data.**
- **Form a group of 3-4 students by Oct 16th 2026. After you form a group, please email me the Full names and Student IDs of all members in your group.**
- **If you cannot find any groupmates, please also email me by Oct 16th 2026.**
- **Please learn this topic by yourselves with/without AI.**
- **Prepare (i) circular/ cylindrical/ directional data and (ii) the materials to introduce a statistical model(s) how to analyze these data. You also need to demonstrate how to implement the model with R, Python, etc., to analyze your data.**
- **Make a video (e.g. Zoom or Youtube) and powerpoint for a (15-20 minutes) presentation. In the video, please present your analysis and results correctly. Also, show your face clearly.**
- **In the video and powerpoint, you should have**
  - **(i) Full name;**
  - **(ii) Title;**
  - **(iii) Introduction --- briefly talk about what the data are;**
  - **(iv) Analysis --- clearly and fully describe your idea how to analyze the data, and interpret the results obtained by R (or any other software);**
  - **(v) Reference (if any).**
- **Submit your data set, codes in txt format, powerpoint, and a video link to the Assignments page on Canvas before the due time. Please do NOT zip your files.**
- **No late submission is accepted.**

Marking scheme:

Scores	Short Description	Elaboration on subject grading description
50-41	Excellent Performance	Demonstrates mastery of correct theories and results for Grey model. The student can appropriately apply this model for prediction, interpret the results accurately, and exhibits strong proficiency in using R, Python or other software for analysis.
40-31	Good Performance	Shows a solid understanding of Grey model. The student can effectively apply it for prediction and interpret the results with minor errors. Demonstrates good competency in using R, Python or other software for performing analyses.
30-21	Satisfactory Performance	Possesses adequate knowledge of Grey model. The student can address familiar problems and perform basic analyses using R/ Python/ other software, though with some inconsistencies. Shows basic ability to interpret results.
20-11	Marginal Pass	Has a threshold understanding of Grey model. The student can perform simple analyses using R/ Python/ other software but the interpretation of results may be limited and occasionally inaccurate.
10-0	Fail	Does not have sufficient understanding of even the basics components of Grey model. The student is unable to effectively apply this model for prediction, nor using R/ Python/ other software for analyses, and fails to interpret results correctly.