

**Phase 1** Project initial description, due Friday October 11<sup>th</sup>

Please turn in, a summary of no more than 1 page, that includes the following:

- 1) Description of data
- 2) Key research question(s) of interest
- 3) Explain how data are correlated
- 4) What makes the dataset interesting?
- 5) What makes the data set messy or unique?

**As long as you answer the questions adequately you will receive full credit.**

**Phase 2** Due Friday October 25<sup>th</sup>

Consider this a 2-3 progress report; the text and format do not need to be polished. I just need to see some progress on initial analyses, below are some suggestions. The 2-3 pages should include text, graphs, tables, etc.

- (1) A descriptive table or graph of the data. The table can be more preliminary, to just describe the data, or summarize the outcome at time points, provide estimates from an initial model fit, etc.
- (2) An initial model fit. For some, you may have to decide whether to use time as class or continuous, how to model the outcome (e.g., continuous, ordinal, count, etc.). But to turn in, just give me streamlined code and output, and in a paragraph or so, explain what you get out of the model fit and what models you plan to use next time. I.e., this is just a starting point. (You may be trying other types of covariance structures in the future, or perhaps some model selection based on changing the list of fixed effects, or different approaches to modeling time (e.g., polynomials or splines?). However, I'd encourage you to focus on selecting covariance structures and fixed effects in separate steps. For example, start with a reasonable/realistic covariance structure and then play with the fixed effects, then once you have your final set of fixed effects, go back and fine tune the covariance structure based on a shortened list of possibilities. (Here 'covariance structure' could mean what you get by adding RANDOM or REPEATED statements, or both.)

As long as you have submitted some reasonable work, you will get full credit.

**Phase 3** Due date variable, but preferably preceding your presentation.

Schedule a time to meet with Matt or Harris (or both) to discuss the project (~1/2 hour)

**Phase 4** November 25, 27 and December 2, 4

Make a 5-7 minute presentation in class, with 2-3 minutes for questions and discussion. The dates will include the last couple weeks of class.

**Phase 5**

Turn in a report of no longer than 4 pages (additional material can go into an Appendix). Submit one PDF for the entire document; the main paper needs to be the first 4 pages, though. I can post a few examples for you to see as the time gets closer. The 4 pages can include text plus tables and figures, but you'll probably want those embedded in the text, and not taking up large spaces. This will be due the last week of class (before final's week), on Friday, by 5pm.